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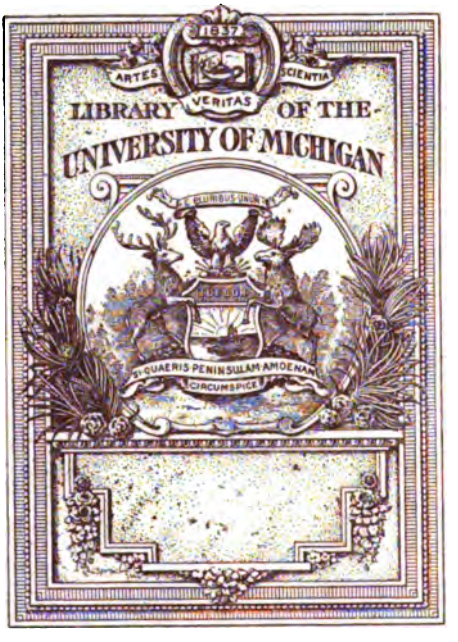

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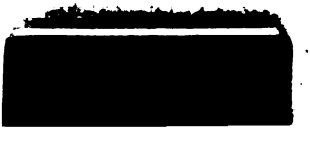

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DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY CONSULAR AND TRADE REPORTS

MAY, 1906

No. 308

WASHINGTON
GOVERNMENT PRINTING OFFICE
1906

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MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C. MAY, 1906 No. 308

COTTON INDUSTRY.

THE TRADE IN PIECE GOODS.

WORLD'S MARKETS DOMINATED BY BRITISH MILLS.

INCREASED SALES IN ALL COUNTRIES—FIGURES AND FACTS FOR UNITED STATES MANUFACTURERS.

The Monthly Record of the Manchester Chamber of Commerce for January contains interesting statistics covering the exports of British cotton manufactures for the years 1903, 1904, and 1905, from which are collated some tabular statements for the benefit of our cotton manufacturers engaged in the exploitation of their products in foreign markets or who may be contemplating foreign trade. The following condensed statement will enable our manufacturers to appreciate the foreign trade enjoyed by the British cotton manufacturers, through the output of this greatest of British industries:

Articles.	1903.	1904.	1905.
Cotton piece goods	$268,958,500	$311,836,300	$344,630,900
Lace and patent net	16,402,100	17,357,400	18,085,500
Hosiery	2,157,400	2,257,100	2,474,700
Thread for sewing	19,471,900	16,604,700	16,489,200
All other	15,199,900	16,959,700	15,767,000
Total cotton manufactures	322,179,800	365,015,200	397,447,300
Cotton yarn	36,050,600	43,580,000	50,210,300
Grand total, including yarns	358,230,400	408,595,200	447,657,600

The countries to which British cotton manufactures other than piece goods were exported are not given in the Manchester Monthly Record. Germany, British India, and Holland are the largest purchasers of British cotton yarn, the value of the exports thereto in 1905 being as follows: Germany, $13,125,500; British India, $9,093,200; Holland, $6,765,000.

The British trade in piece goods being that which is of most immediate interest to our cotton factors the following tables have been specially prepared for their consideration. The first table, showing the exports of the four classes of British piece goods to the several countries in 1905, will enable them to see at a glance the kinds of piece goods consumed and the extent to which they are consumed in all

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markets. The second table shows the total exports of British piece goods in 1903, 1904, and 1905, and the trend of the several markets—increased or decreased consumption.

No. 1.—*Exports of British cotton piece goods to the several countries in 1905.*

Countries.	Description of piece goods.				Total.
	Unbleached.	Bleached.	Printed.	Dyed (or of dyed yarn).	
AFRICA.					
Foreign Africa:					
Egypt	$3,138,500	$5,695,300	$2,858,200	$2,308,300	$14,000,300
All other foreign	465,000	3,218,300	1,403,100	1,455,200	6,541,600
Total foreign	3,603,500	8,913,600	4,261,300	3,763,500	20,541,900
British Africa:					
Southern possessions	214,200	794,800	1,114,000	1,664,000	3,787,000
West coast	324,100	1,310,200	2,171,500	1,321,400	5,127,200
Total British	538,300	2,105,000	3,285,500	2,985,400	8,914,200
Total to Africa	4,141,800	11,018,600	7,546,800	6,748,900	29,456,100
AMERICA.					
Foreign America:					
United States	552,000	2,513,700	373,800	6,399,400	9,838,900
Mexico	45,900	591,800	292,000	484,300	1,414,000
Central America	346,100	690,700	567,500	554,900	2,159,200
Foreign West Indies	552,900	771,700	821,200	1,020,200	3,166,000
South America—					
Colombia	96,500	512,100	528,700	414,600	1,551,900
Venezuela	41,000	436,600	419,500	502,300	1,399,400
Peru	69,700	678,200	744,100	709,100	2,201,100
Chile	777,200	1,748,100	1,089,000	1,591,900	5,156,200
Brazil	120,700	2,098,000	2,880,100	2,743,800	7,842,600
Uruguay	436,500	865,900	894,000	1,195,800	3,392,200
Argentine Republic	1,209,900	3,100,500	2,725,300	3,423,700	10,459,400
Total South America	2,751,500	9,439,400	9,230,700	10,581,200	32,002,800
Total foreign America	4,248,400	14,007,300	11,285,200	19,040,000	48,580,900
British America—					
Canada	141,200	867,900	1,123,300	1,060,700	4,093,100
West Indies and Guiana	189,200	911,100	579,600	806,000	2,485,900
Total British America	330,400	1,779,000	1,702,900	2,766,700	6,579,000
Total America	4,578,800	15,786,300	12,988,100	21,806,700	55,159,900
ASIA.					
Foreign Asia:					
Turkey in Asia	3,118,000	2,604,600	3,114,200	2,339,800	11,176,600
Persia	334,900	485,300	841,000	369,400	2,030,600
Dutch India	1,742,800	3,686,900	4,158,400	2,242,600	11,825,700
China and Hongkong	18,697,200	14,075,400	2,282,000	14,570,300	49,624,900
Japan	3,004,400	1,463,400	871,300	2,405,100	7,804,200
Philippine Islands	35,600	903,700	688,800	688,400	2,316,500
Total foreign Asia	26,992,900	23,219,300	11,950,700	22,615,600	84,778,500
BRITISH ASIA.					
British India:					
Bombay	11,447,200	13,890,500	9,378,200	6,618,800	41,334,700
Madras	3,871,400	962,200	1,508,700	626,900	6,969,200
Bengal	40,399,400	8,517,400	3,557,000	4,061,200	56,585,000
Burma	325,600	1,838,600	1,183,600	1,060,900	4,408,700
Total British India	56,043,600	25,208,700	15,627,500	12,367,800	109,247,600
Straits Settlements	1,911,100	2,375,400	1,134,700	1,267,800	6,689,000
Ceylon	383,800	474,100	384,100	255,500	1,497,500
Total British Asia	58,338,500	28,058,200	17,146,300	13,891,100	117,434,100
Grand total for Asia	85,331,400	51,277,500	29,097,000	36,506,700	202,212,600

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No. 1.—*Exports of British cotton piece goods to the several countries in 1905*—Continued.

Countries.	Description of piece goods.				Total.
	Unbleached	Bleached.	Printed.	Dyed (or of dyed yarn).	
AUSTRALASIA.					
Australia	$1,087,100	$2,929,700	$2,455,400	$4,243,700	$10,665,900
New Zealand	430,700	610,700	434,600	902,700	2,378,700
Total Australasia	1,467,800	3,540,400	2,890,000	5,146,400	13,044,600
EUROPE.					
Germany	1,604,700	952,900	962,200	1,799,700	5,319,500
Holland	1,231,200	634,000	578,800	1,540,800	3,984,800
Belgium	3,149,200	532,500	765,600	1,795,300	6,242,600
France	70,200	431,200	182,300	709,200	1,392,900
Portugal	238,500	939,800	105,700	553,900	1,837,900
Italy	119,200	147,500	240,900	445,400	953,000
Austria-Hungary	23,500	37,100	25,400	53,200	139,200
Greece	431,200	402,100	448,700	549,800	1,831,800
Turkey	2,078,500	2,219,100	2,255,200	1,560,300	8,113,100
Total to Europe	8,946,200	6,296,200	5,564,800	9,007,600	29,814,800
RECAPITULATION.					
Africa	4,141,800	11,018,600	7,546,800	6,748,900	29,456,100
America	4,578,800	15,786,300	12,988,100	21,806,700	55,159,900
Asia	85,331,400	51,277,500	29,097,000	36,506,700	202,212,600
Australasia	1,467,800	3,540,400	2,890,000	5,146,400	13,044,600
Europe	8,946,200	6,296,200	5,564,800	9,007,600	29,814,800
Piece goods not specifically designated	2,281,200	4,707,000	3,102,700	4,852,000	14,942,900
Grand total exports	106,747,200	92,626,000	61,189,400	84,068,300	344,630,900

No. 2.—*Total exports of British cotton piece goods to the several countries during the years 1903, 1904, and 1905.*

Countries.	1903.	1904.	1905.
AFRICA.			
Foreign Africa:			
Egypt	$11,208,800	$14,790,300	$14,000,300
All other foreign Africa	6,283,200	6,023,700	6,541,600
Total foreign Africa	17,487,000	20,814,000	20,541,900
British Africa:			
South Africa	4,526,800	2,422,600	3,787,000
West Africa	4,627,100	4,819,300	5,127,200
Total British Africa	9,153,900	7,241,900	8,914,200
Grand total to Africa	26,640,900	28,055,900	29,456,100
AMERICA.			
Foreign America:			
United States	9,971,500	7,629,900	9,838,900
Mexico	1,216,200	1,503,700	1,414,000
Central America	1,632,800	2,374,400	2,159,200
West Indies	3,643,700	4,436,400	3,166,000
South America:			
Colombia	2,020,100	2,303,400	1,551,900
Venezuela	2,981,700	2,226,900	1,399,400
Peru	1,560,800	1,876,100	2,201,100
Chile	4,262,700	4,206,200	5,156,200
Brazil	8,163,200	7,893,500	7,842,600
Uruguay	2,491,900	2,059,200	3,392,200
Argentine Republic	8,902,700	11,456,900	10,459,400
Total South America	30,383,100	32,022,200	32,002,800
Total foreign America	46,847,800	47,966,600	48,580,900

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No. 2.—*Total exports of British cotton piece goods to the several countries during the years 1903, 1904, and 1905*—Continued.

Countries.	1903.	1904.	1905.
AMERICA—continued.			
British America:			
Canada	$3,987,600	$4,301,600	$4,093,100
West Indies and Guiana	2,502,600	2,301,900	2,485,900
Total British America	6,490,200	6,603,500	6,579,000
Grand total to America	53,337,500	54,570,100	55,159,900
ASIA.			
Foreign Asia:			
Turkey in Asia	10,106,800	12,221,400	11,176,600
Persia	1,736,400	1,794,900	2,030,600
Dutch India	7,800,500	10,205,100	11,825,700
China and Hongkong	27,390,600	37,232,700	49,624,900
Japan	4,203,700	2,866,000	7,804,200
Philippine Islands	1,342,300	1,504,500	2,316,500
Total foreign Asia	52,580,300	65,824,600	84,778,500
British Asia:			
British India	83,578,200	103,089,900	109,247,600
Straits Settlements	5,938,600	5,782,000	6,689,000
Ceylon	970,400	1,154,900	1,497,500
Total British Asia	90,487,200	110,026,800	117,434,100
Grand total to Asia	143,067,500	175,851,400	202,212,600
AUSTRALASIA.			
Australia	8,238,100	10,428,200	10,665,900
New Zealand	2,794,500	2,589,600	2,378,700
Total to Australaisa	11,032,600	13,017,800	13,044,600
EUROPE.			
Germany	4,635,300	4,898,600	5,319,500
Holland	3,443,700	3,448,000	3,984,800
Belgium	4,596,000	5,034,300	6,242,600
France	1,640,600	1,580,600	1,392,900
Portugual	1,798,300	1,741,200	1,837,900
Italy	653,700	831,400	953,000
Austria-Hungary	167,900	145,100	139,200
Greece	2,195,300	2,057,000	1,831,700
Turkey	5,000,400	7,110,500	8,113,100
Grand total to Europe	24,131,200	26,846,700	29,814,700
RECAPITULATION.			
Africa	26,640,900	28,055,900	29,456,100
America	53,337,500	54,570,100	55,159,900
Asia	143,067,500	175,851,400	202,212,600
Australasia	11,032,600	13,017,800	13,044,600
Europe	24,131,200	26,846,700	29,814,700
Not specifically designated	10,748,800	13,494,400	14,943,000
Grand total exports	268,958,500	311,836,300	344,630,900

DEDUCTIONS FROM THE FIGURES.

The foregoing tables contain special pointers for our manufacturers, viz, wherever British trade flourishes there is the promising field for American manufacturers, but wherever British trade runs toward zero, or shows strained effort for its retention, it would not be wise to expend therein any particular efforts for the introduction of our cotton goods. If, in connection with general trade, we can find openings

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for our cottons in such markets well and good, but it would be inadvisable, while the consuming countries are open to us, to lose any time for their particular exploitation.

Without neglecting any market the British cotton factors find in Asia their great field of exploitation. Of the total exports of British piece goods in 1905 ($344,630,900) $202,624,900, or nearly 60 per cent of the whole, went to Asia, and of this $117,434,100 went to the British East Indies and $49,624,900 to China and Hongkong. Of the total increase in value of British piece goods exported in 1905 ($32,794,600) the increase to Asia alone makes up $26,361,200, leaving only $6,433,400 as the increase for all other countries.

By a glance at table No. 2 it will be seen that, outside of Asiatic trade, the British exports of piece goods may be said to hardly hold their own—the effort toward this end being very apparent, especially in regard to exports to the American continent, viz, $46,847,300, $47,966,600, and $48,580,900 in 1903, 1904, and 1905, respectively.

As for British cotton piece goods, Asia seems to be also the great field for American piece goods—that is China—for of our total exports in 1905 ($47,652,434) no less than $33,514,818 went to China alone. Only a little more than $2,000,000 worth, however, went to all other countries in Asia. Our exports to British India, which consumed in 1905 $117,434,100 worth of British cotton piece goods, amounting to only $769,000.

Had our cotton factors given the remainder of Asia the same attention which they have given to China, our exports of cotton piece goods to that continent to-day would be much greater than our entire exports are to all countries.

AMERICAN COTTONS.

EXPORTS COMPARED WITH THOSE OF GREAT BRITAIN.

Our cotton factors, after reviewing the foregoing statistics covering the exports of British manufactures, will doubtless be desirous of securing after the same manner of compilation, as far as the publications of the Bureau of Statistics permit, a statement of the exports of American cotton manufactures during the same calendar years covered in the British statements. The total value of exports of American cotton manufactures in those years is shown in the annexed table:

Articles.	1903.	1904.	1905.
Piece goods:			
Colored	$6,395,200	$6,418,100	$7,144,200
Uncolored	13,337,800	19,149,900	40,508,200
Total piece goods	19,733,000	25,568,000	47,652,400
Wearing apparel	2,692,000	2,993,000	3,858,300
Yarn	85,400	238,700	343,200
All other cotton goods	3,070,500	3,400,500	3,335,800
Total exports	25,580,900	32,196,200	55,189,700

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The following table shows the several countries to which our piece goods were exported during the three years under review. Separate statistics for colored and uncolored goods are not obtainable.

Total exports of American cotton piece goods, colored and uncolored, to the several countries in 1903, 1904, and 1905 (calendar years).

Countries.	1903.	1904.	1905.
AFRICA.			
British Africa	$279,300	$347,600	$375,900
All other countries in Africa	31,100	49,900	52,400
Total to Africa	310,400	397,500	428,300
AMERICA.			
Canada	911,500	744,600	772,900
Mexico	201,000	220,200	304,300
Central America	942,800	1,371,300	1,560,500
West Indies:			
Cuba	271,600	656,000	1,212,300
All other West Indies	1,493,200	1,280,600	1,679,100
South America:			
Argentina	93,800	254,600	440,800
Brazil	682,200	659,900	743,500
Chile	589,900	724,800	871,700
Colombia	967,200	919,000	516,900
Venezuela	611,900	380,800	397,900
All other countries in South America	384,300	404,400	505,700
Total to South America	3,(20,300	3,343,500	3,476,500
Total to America	7,155,400	7,616,200	9,005,600
ASIA.			
China	8,802,000	13,911,600	33,514,800
British East Indies	498,300	331,200	769,400
Hongkong	65,000	52,800	63,000
Japan	26,800	561,800	828,300
All other countries in Asia	2,093,100	1,799,800	1,812,700
Total to Asia	11,485,200	16,657,200	36,988,200
Australasia	329,200	496,400	665,400
EUROPE.			
United Kingdom	326,000	275,000	393,300
Germany	15,100	10,900	22,100
All other countries in Europe	111,800	114,800	149,600
Total to Europe	452,900	400,700	565,000
RECAPITULATION.			
Africa	310,400	397,500	428,300
America	7,155,400	7,616,200	9,005,600
Asia	11,485,200	16,657,200	36,988,200
Australasia	329,200	496,400	665,400
Europe	452,900	400,700	565,000
Total	19,733,100	25,568,000	47,652,500

To enable our manufacturers to more directly compare their foreign trade with that of the United Kingdom the following table has been prepared to show the quantities and value of British and American piece goods exported to the several countries, as far as the returns of our Bureau of Statistics permit, during the calendar year 1905:

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Statement showing quantities and value of British and American cotton piece goods exported to the several countries in 1905.

Country.	Quantities.		Value.	
	British.	American.	British.	American.
AFRICA.	*Yards.*	*Yards.*		
British Africa	124,984,000	7,165,300	$8,914,200	$375,800
All other Africa	386,760,600	623,900	20,541,900	52,400
Total Africa	511,744,600	7,789,200	29,456,100	428,200
AMERICA.				
United States	65,563,400	.....	9,838,900	.....
Canada	45,189,300	9,926,200	4,093,100	762,900
Mexico	21,027,600	3,512,900	1,414,000	304,300
West Indies:				
Cuba	.....	24,247,600	.....	1,212,300
All other	.....	30,719,800	.....	1,679,100
Total West Indies	127,851,500	54,967,400	5,651,900	2,891,400
Central America	49,523,100	28,217,000	2,159,200	1,560,500
South America:				
Argentina	159,115,300	3,719,300	10,459,400	440,800
Brazil	131,503,700	9,962,700	7,842,600	743,500
Chile	96,995,700	14,726,800	5,156,200	871,700
Colombia	31,797,500	10,092,100	1,551,900	516,900
Venezuela	32,716,900	7,284,000	1,399,400	397,900
All other South America	95,804,600	8,187,200	5,598,300	505,700
Total South America	547,933,709	53,992,100	32,002,800	3,476,500
Total America	857,088,600	150,615,600	55,159,900	8,995,600
ASIA.				
China and Hongkong	799,732,300	563,188,400	49,624,900	33,577,800
British East Indies	2,539,286,900	10,907,300	117,484,100	769,400
Japan	128,724,800	10,441,600	7,804,200	828,300
All other Asia	526,310,200	34,116,200	27,349,400	1,812,700
Total Asia	3,994,054,200	618,653,500	202,212,600	36,988,200
Australasia	168,796,000	7,861,200	13,044,600	665,400
EUROPE.				
United Kingdom	.....	3,191,200	.....	398,300
Germany	65,842,300	277,100	5,319,500	22,100
All other Europe	365,737,300	1,971,400	24,495,200	149,600
Total Europe	431,579,600	5,439,700	29,814,700	565,000
RECAPITULATION.				
Africa	511,744,600	7,789,200	29,456,100	428,200
America	857,088,600	150,615,600	55,159,900	8,995,600
Asia	3,994,054,200	618,653,300	202,212,600	36,998,200
Australasia	168,796,000	7,861,200	13,044,600	665,400
Europe	431,579,600	5,439,700	29,814,700	565,000
Not specifically designated	234,936,900	.....	14,943,000	.....
Grand total exports	6,198,199,900	790,259,000	344,630,900	47,652,400

CHINA.

REVIEW OF THE PAST THREE YEARS—OUTLOOK FOR CURRENT YEAR.

Consul-General James L. Rodgers furnishes the following on the American cotton-goods trade at Shanghai, which serves not only to show the conditions which confronted the boycott movement and its effect, but also conditions that now obtain. The consul-general writes:

The enormous increase of importation has been referred to many times, but it will be interesting herein to note the complete results of

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the year as to distribution and the matters connected therewith, one of which is the boycott. For the reason previously given the comparative statements are based on 1903 and 1905. It will be seen that the reexport to the three northern ports actually doubled in 1905, while the percentage of the total rose nearly 6¼ points. This is remarkable as a record standing alone, but it becomes still more so when it is remembered that during nearly all the period of shipping to the north in 1905 there was, first, the dangerous navigation owing to the war, with the consequent high rates of insurance and charters; second, the difficulty of trade in Manchuria in the autumn; and, third, the prevalence of boycott sentiment at the port of shipment. There can be many conclusions as to how these impediments were overcome, but the prominent estimate must be that which emphasizes the ability and persistence of the Chinese traders.

CAUSES FOR DECLINE.

In the showing as to reexport to Yangtze River ports a view of the effect of the boycott may be given, since there was a marked falling off. However, in the light we have now as to the boycott—an understanding, by the way, which could not be reached during its period on account of lack of statistics and misleading statements not only from the Chinese but also the importers, who were not very sure what was happening or what would happen to them—it is probable that an investigation both as to effect and cause would show some reason for the falling off quite as logical as that attributed to antagonism to American goods. For instance, since other cotton goods were on the market and a serious surplus as well as a boycott on foreign goods was threatened, it may be believed that the small traders and the timid ones made a virtue of a fancied necessity and unloaded. Again, it may be held that an overstock already existed from previous years, and that general conditions apart from this operated adversely. Nevertheless, that there was some boycott effect in the Yangtze trade can not be denied, and the main question is only as to its volume.

STOCKS NOW HELD.

This brings us to present conditions and future considerations which, it must be admitted, now indicate uncomfortable prospects. The present stock of American cotton goods in Shanghai is estimated as follows: Sheetings of all kinds, 3,888,483 pieces, against 793,115 in 1903; drills, 1,184,997, against 519,198; jeans, 179,169, against 42,317, making a total of 5,252,649, against 1,355,430, or nearly four times as much. The stock of a year ago was not quite normal, however, the surplus representing the somewhat smaller remainder after the relapse from the pressure of the preceding years. Such an undelivered stock nevertheless is embarrassing, and therefore it is having its effect upon the 1906 importations, which will certainly not reach those of 1905, unless all indications are at fault.

REASON FOR THE SURPLUS.

The reason for this surplus is explained by the Chinese merchants and the importers in this way. There has been overpurchase, the season of 1905 was short, and in addition Manchuria did not open as

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expected. Furthermore, the Japanese in Manchuria have had a deterrent effect other than in the way of monopolizing transportation facilities. The currency problem has been probably the ruling factor, since Shanghai merchants, who pay their contract prices in the absolute equivalent of pounds, shillings and pence or dollars, will not accept from their consignees in the north any depreciated war paper, and will not accept settlements which involve a discount which has run as high as 20 per cent. The Newchwang merchant is similarly unwilling, and in the absence of the volume of the usual barter owing to one cause or another, but principally to lack of transportation, he has his stock unsold. So the blockade is enforced, and as perhaps three-quarters of the cotton goods imported into Shanghai are taken on indents by Chinese merchants, there is naturally a great lull in the market. All this, however, has absolutely nothing to do with any boycott sentiment, and no condition of the present can be said to be even remotely connected with that issue. It has been stated, and apparently with entire truth, that in anticipation of, and to fortify against, any boycott which might be inaugurated in 1906, many contracts were made in the last quarter of 1905 and in January of 1906; but that has no bearing upon present-day affairs, when many of the Chinese merchants who made huge sums of money in 1905 out of American cotton goods are now losing money on account of the surplus.

THE BOYCOTT.

AMERICAN TEXTILES NOT AFFECTED IN SOUTH CHINA—IMPORTS OF PIECE GOODS AT CANTON.

Consul Anderson, before leaving Amoy for his new post in Brazil, wrote a valuable report on the trade situation there as affecting American commerce, especially relating to cotton goods. He says:

The cotton trade of Amoy for 1905 shows little change from the trade of the two previous years. British merchants of Hongkong have the trade and seem to have no difficulty in keeping it, except as to one or two items in which Japanese manufacturers, with American raw materials, are securing a hold. There was an increase of imports of American drills from $380 to $3,500, and a slight increase in the imports of American jeans. But the demand for these goods so far is very small, very largely, in my opinion, because the Chinese people do not know of them. There was a decrease of about 4 per cent in the consumption of gray shirtings and an increase of 4 per cent in the imports of English T cloths, with a big falling off in the consumption of Japanese goods of the same sort. In white shirtings the Japanese manufacturers seem to have captured the market, for during 1905 such goods to the value of $122,441 were imported, as compared with $146,123 of such goods from Great Britain the year before. There was a marked falling off in the imports of printed cottons.

COTTON YARNS IN GROWING DEMAND.

Apparently Indian cotton yarn is holding its own and there seems to be no break in the disposition of the Chinese cotton consumer to make his own cloth of certain grades, while prices for cotton goods

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The weight of the annual importations of cotton goods into the port of Smyrna is over 6,000 tons.

FABRICS IN DEMAND.

Great Britain has almost a monopoly of muslins, mulls, printed and colored handkerchiefs, and furnishes most of the calicoes and white goods (bleached and unbleached). Italy contributes much unbleached cotton. Drills come chiefly from Italy, Great Britain, and France. Heavy cotton cloth is supplied mostly by Germany and Austria, with a certain amount lately from Greece. Italy is rapidly superseding Great Britain in supplying colored cottonades, flannels, and flannelettes. Cotton velvet comes from Great Britain and Germany. Cotton shawls are supplied by Germany and Austria. America contributes little to the trade except the standard gray sheetings, the "cabot," so thoroughly appreciated throughout the Orient. In certain distributing points in the interior the cabot occupies a predominant place in the market. The city of Koniah, for example, requires annually 20,000 pieces of American cabot.

A good indication of the needs of a fairly prosperous community is afforded by the trade of the island of Mytilene. The annual importation of foreign cotton goods there is valued at $80,000. It includes 2,600 pieces drills (black and white), 2,050 pieces gray shirtings, 1,800 pieces madapollam shirtings (bleached and unbleached), and 1,000 pieces cabot.

LINES FOR EXPANSION.

While the American trade in cabot illustrates most happily the durable success attained by long-continued adherence to a high standard of production in a single article, it is desirable for our manufacturers to consider whether it is not worth while to cater to the widespread demand in the Turkish market for very cheap cotton textiles. In the case of ginghams and the various other light cottonades there is a steadily increasing local production in the country itself, which, however, fails to gain on the growing demand. The trade in these articles at Smyrna amounts to about $500,000 per annum. It consists of goods costing from 10 to 20 cents per meter for widths varying from 50 to 110 centimeters. Italy is at present the chief country to supply the needs of the market; then follow in order Switzerland, France, Germany, Austria, and Great Britain.

A field in which there is no local competition is that of calicoes and prints. Here also Italy leads in sales, absorbing 55 per cent of the business; Great Britain holds 35 per cent, and other European countries 10 per cent. Germany is now devoting especial attention to the preparation of designs which meet popular taste, and promises soon to gain a strong foothold in the market. This matter of design is, in fact, all important. Oriental races are accustomed to certain conventional styles of figure and coloring, which they are with difficulty led to abandon in favor of the current designs of occidental printers.

RICH COLORS POPULAR.

Any measureable success in securing this class of trade must depend upon a genuine effort to conform to the local canons of taste. I have

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collected over 100 samples of the prints which are most in vogue, not only at Smyrna, but also in the interior towns and villages, and forward them for the use of any who are interested in looking more closely into the possibilities of this field. Some of the designs included among these samples are current in Europe and America. The more popular designs (as indicated on the labels) are, however, decidedly gaudy and florid. Some of the leading firms in Smyrna which cater to this trade have branch offices at Manchester, where their representatives closely supervise the printing of the wares destined for this market. Italian manufacturers send their own agents to study on the spot the current demands, which do not, however, change rapidly from one year to another. There is a keen competition between the calico printers of the two countries, and the growing predominence of Italy is largely due to the exceedingly intelligent and untiring effort to meet prevalent needs and taste.

If American manufacturers desire to enter this field, they must of necessity conform to the conditions as outlined above. Undoubtedly a serious effort to secure a large share of the Levantine trade in prints would be attended by success if made earnestly and persistently. A competent representative of our cotton-textile interests once established in such a distributing center as Smyrna could master in a few months the details of the trade and organize an effective campaign. It should preferably involve the introduction of all the varieties of American cotton textiles able to hold their own against European competition.

BEST TRADE BUILDING METHODS.

Stocks should be sufficiently large so that orders can be filled promptly, as one of the chief drawbacks to American trade in such articles is the delay and uncertainty inherent to the execution of orders sent from Turkey. In the case of textiles, as of many other wares, the establishment of a distributing center in the Levant itself is a most important factor in deciding the question of ultimate success. Nothing discourages an agent, a subagent, or a prospective permanent customer more than inability to fill orders with promptness. One element in the present satisfactory position of Italian trade is the practice of granting from three to six months' credit. This, of course, involves a thoroughgoing familiarity with local credit conditions. In the case of American competition it would likewise render imperative the presence on the ground of a competent representative, able to gain an intelligent grasp of local finance.

It is practically impossible to win a market here for articles involving close competition, unless the three factors of personal representation, quick delivery, and facilities in payment are combined. Occasionally, as in the case of "cabot," an article of recognized and standard excellence, local capital is ready to carry all risks and make cash payments on shipments. Such an instance is, however, purely exceptional. The measure of success attendant upon the introduction in this Empire of our sewing machines, agricultural implements, and a few other wares, has been due chiefly to this union of the three requisites mentioned above.

OPENING FOR AMERICAN FABRICS.

Consul Jesse B. Jackson advises that one of the best fields of its size and population yet to receive the attention of the American

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exporter of cotton goods is Asiatic Turkey. He writes from Alexandretta:

The trade of this region should command immediate careful investigation. By the following figures for this consular district, which will compare favorably with those of the entire country, it will be seen that while the importations are quite large almost none come from America. There can be no good reason why American merchants can not enter this field and successfully compete with those of England, Italy, Germany, and Austria. During the year 1904 there entered at the port of Alexandretta cotton goods to the value of $5,982,800, of which but $13,626 was from the United States. At the port of Mersine, in this consular district, the cotton-cloth importations amounted to a value of $1,111,120 for the same year, with none from America, making a total importation of the value of $7,093,920, and although the figures for the year 1905 are as yet unavailable it is estimated they will equal if not exceed those of the previous year.

The principal varieties of cotton cloth used in this country are cabots, white and gray sheetings of various weights, black, gray, and blue drills, cotton flannels, gray and brown jeans, muslins, prints, calicoes, and ducks. By an energetic effort on the part of the American exporter a large part of this lucrative trade should be secured, as American goods are generally looked upon by the people of this country as being most desirable because of their superiority. It would produce the most satisfactory results if American merchants would send their personal representatives here who speak French or Arabic, or both, and supplied with sufficient samples to exhibit to the trade.

GERMANY.

SPINNERS FEAR ENGLISH COMPETITION IN YARNS.

Consul Joseph I. Brittain, writing from Kehl, says that the new German tariffs providing, among other things, for the lowering of the import duties on cotton yarns, have caused considerable apprehension in some trade circles, as it is feared that it may in time lead to serious competition of foreign yarns on German markets. It is also felt that the extension of old and building of new spinning mills has recently proceeded at a rate which must sooner or later lead to serious congestion in the yarn market, even without foreign competition. Continuing, the consul says:

It is estimated that, compared with 1901, German cotton spindles have increased over 15 per cent, and, compared with 1893, as much as 60 per cent. In Westphalia the increase is much more pronounced, amounting to practically 32 per cent, and 160 per cent on the same basis of comparison. During 1905 German cotton spinners have done well; dividends have increased, wages have risen, and most mills are improving their producing capacity. But it is asserted that for some months past competition has increased and the price of yarns has not kept that profitable relation to the cost of raw material which was obtained last year. While, therefore, the increasing output has so far found ready sale, the profit margin has deteriorated to a very thin

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percentage. English competition has not, so far, been troublesome, but spinners here ask themselves what will be their position if the English market, through decreasing cloth sales, is no longer able to absorb the growing yarn supplies. They apprehend that the German market will be swamped with English yarns, competing with their own excessive supplies. But England is not the only country from which competition is feared. The Lodz Export Syndicate of Cotton Spinners, which was dissolved a year ago, has been reconstituted, and is already offering yarns freely in Berlin and elsewhere. Austria is likewise making cheap yarn offers to German consumers, with the aid of export premiums provided for by the Austrian Spinners Syndicate.

ALSACE-LORRAINE DISTRICT.

The textile manufacturers of Alsace-Lorraine report a successful period for the year 1905, and have orders booked ahead already which will keep them busy during the summer season, and some have refused orders unless the time of delivery is extended into the fall months. Early in March a great strike was inaugurated at Muhlhausen, Alsace, where more than 5,000 workmen, employees at upward of a dozen textile mills, went out, demanding an advance of 15 per cent in wages and a ten-hour working day. A compromise has been effected by which the workmen receive a 10 per cent advance and the working day has been reduced one-half hour.

BOLIVIA.

CLOTHING NEARLY ALL IMPORTED.

Cotton goods form one of the most important items of Bolivian import trade, says a Berlin journal. "Tocuyos," or gray domestics, are quite prominent. Peru, the United Kingdom, and the United States are strong competitors, an American firm which has a branch in London and a buyer in Germany sending for the most part "tocuyos," white drills, flannels, prints, and white cloths. Included also are sundry kinds of gray domestics; gray, white, and blue drills, and white shirtings.

The "tocuyos" serve not merely as underclothing for many Indians and for the larger portion of the population, but also in the warmer districts as the entire clothing of the Indians. The better classes wear white cloth or shirting instead of "tocuyos." The Indians inhabiting the high plateau in the west of Bolivia wear all wool, mostly native lama wool, while the "Cholos," or half-breeds, wear European cotton hosiery and woolen cashmeres as well as "tocuyos."

The "Cholos" are also the principal consumers of calicos, and prefer glaring, parti-colored stuffs. Germany, England, and France rule the market for women's dress materials, but imports from the last-named country are declining in spite of the Bolivians' fondness for Paris modes. Cotton flannels were formerly an important import from Germany, but the United Kingdom weavers have now ousted them by imitating the German patterns at a cheaper price. Germany, however, does not intend to let any opportunity slip for recovering her

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former position. Italy is now competing in this class of goods, as she is also in cotton hosiery.

As regards the trade in shawls and wrappers, Berlin leads in the better qualities. In tablecloths Italy is beginning to compete in cheap cotton qualities—to the detriment of the linen quality.

COTTON GROWING.

THE REPUBLIC OF ARGENTINA.

REMOTENESS OF MARKETS AND LACK OF LABOR THE DIFFICULTIES.

Consul-General George C. Cole, of Buenos Aires, sends a report on cotton growing in the Argentine Republic, as follows:

The cotton zone of Argentina lies chiefly north of the thirty-third parallel of south latitude and comprises about 375,000 square miles, being greater in extent than all the Gulf States of the United States, with Georgia and South Carolina, although not more than half of this territory is suitable for growing cotton by reason of altitude and climate, yet there are at least 150,000,000 acres of cotton land, much of which, under skillful management, is capable of producing excellent crops of cotton. In some localities insects are quite destructive to the cotton plant. Cotton was grown in this country when the Spaniards first settled it. The Jesuit colonists in the province of Misiones, in the eighteenth century, exported cotton cloth of good quality, but the growing of cotton in this country was discontinued when the establishment of steam navigation on its rivers and railroads brought foreign cotton products and undersold the native goods. A feeble and unsuccessful attempt was made to revive the growing of cotton in this country during the civil war in the United States, as the supply from that country for the European mills was cut off.

CLIMATIC AND OTHER CONDITIONS.

The native cotton is all of the short staple varieties and the plants are perennial in some localities, living for more than twenty-five years. Numerous varieties of cotton from North America have been experimented with, and in most instances it has proven to be superior to the native seed. The temperature during eight or nine months in the year in this zone averages about 80° F. during the day and about 70° during the night. The maximum in midday during the summer frequently registers 105°. The chief rainfall is during the winter season, but every month in the year is well supplied with rain, except the months of January and February, which are visited some seasons by drought. As the seasons are reversed south of the Equator from those north of it, spring begins in this zone the last of August and winter the last of April; therefore cotton may be planted as early as the 1st of September. The plants will rarely cease to grow during the whole year, but in some seasons, as was the case in 1904, frosts may kill the plants in the winter season. For the last six or seven years cotton has been successfully grown for commercial purposes, and the area planted last year was over 15,000 acres. As the population in the cotton district is very

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much scattered, labor is comparatively high and difficult to obtain, except Indians, who are lazy and unreliable, and the cost of picking cotton runs as high as 1½ cents per pound. Transportation charges are so high that they preclude the growing of cotton at present except along the navigable rivers. Some of the companies that gin cotton extract the oil and make cake for exportation.

CHARACTER AND COST OF LAND.

The land in this zone varies. Some is open and can be prepared for tillage with but little labor, some is covered with a tangle of trees and vines, while other large portions are covered with water from 1 to 24 inches. The open lands are level, free from stone, very fertile, and are easily tilled. The most available lands for cotton plantations are held chiefly in large tracts of 100,000 acres or more. These tracts sell from $2 to $8 per acre, and the smaller tracts of choice land sell at from $5 to $20 per acre and are constantly advancing. The public roads through this district are few and very poor, and the streams are without bridges. Taxes are relatively high in this district.

These lands are useful for many purposes other than cotton growing. Cattle, sheep, and hogs are raised there very successfully, but horses are not, because of the dangerous and contagious disease called "mal de cadera," a malady that soon proves fatal. Potable water in some parts of the district is difficult to obtain, but in other localities good and wholesome water is in abundance. All articles of living are very high, except what is produced on the land, and while a great variety may be grown, it is practically worthless, except for home consumption, because the territory is so far from any market, the nearest being Buenos Aires, which is from 800 to 1,500 miles away.

WEST INDIES.

INCREASED OUTPUT OF SEA-ISLAND PRODUCT.

The commissioner of agriculture for the British West Indies, has forwarded a report to the colonial office at London, in which the results of cotton cultivation are shown to be highly satisfactory. It appears that a considerable extension of the area under cotton is likely to take place this year, and special arrangements for the supply of carefully selected and disinfected seed at cost price are being made by the imperial department of agriculture. In course of his dispatch the commissioner states that, as compared with 2,546 bales exported in 1904, the number of bales exported in 1905 was 3,956, showing an increase of 1,410 bales. It may be added that the bales exported in 1905 were generally larger than those exported in 1904. The total weight of the lint or clean cotton exported in 1905 was 1,122,800 pounds, of the estimated value (at 1s. per pound for sea-island cotton and 6d. per pound for Marie Galante cotton) of £47,846.

Regarding the value of the output the commissioner says: "If the average price at which the sea-island cotton was sold at Liverpool and the value of the seed used for planting purposes and ground into meal for feeding cattle and other purposes are taken into consideration, the total value of the sea-island cotton industry in the West Indies during

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1905 was probably not less than £63,300. As the West Indian cotton industry is a new one (it was started only four years ago) the result must be gratifying to all who are interested in the welfare of these colonies, and especially to the British Cotton Growing Association, whose valuable assistance has been of great service in fostering cotton growing in this and other portions of the Empire."

OUTLOOK FOR THE FUTURE.

"The prospects of the crop of 1906 now being shipped are very promising. The total yield will probably show a considerable increase on that of 1905. Judging by the results of the sales that have already been made, prices are likely to be fully maintained. The first shipment of new crop cotton from Barbados was recently sold at the rate of 16d. and 16½d. per pound. A small shipment of five bales from St. Vincent obtained 17d. per pound."

The imperial commissioner says that the West Indies may now be regarded as practically independent of the United States in the matter of seed supply. "Owing to the fact that the best West Indian cotton has obtained on an average higher prices than cotton produced in the sea islands, applications are being received from Florida and Georgia for improved seed from the West Indies. Similar applications are also being received from Cuba, Porto Rico, and the French islands. It is admitted that the sea island cotton industry is a highly specialized one, and that the skilled assistance of a department of agriculture is essential to its stability, for without such assistance it is probable that the general high quality of the lint can not be maintained, nor can the numerous insect and other pests to which the cotton plant is specially liable be successfully dealt with."

SOUTH AFRICA.

EFFORTS FOR CULTURE IN MOZAMBIQUE.

Consul William J. Pike, of Zittau, writes as follows regarding efforts being made to cultivate cotton in German colonies:

Every effort looking to the successful cultivation of cotton is thoroughly discussed by the German press and always read with intense interest by the industrial classes. A recent number of the "Deutsche Wollen-Gewerbe" states that the progress of cotton culture in the territory of the Mozambique Company is highly satisfactory. The production is still in the trial stage, but experiments—governmental and private—prove that various sorts of cotton can be successfully grown. In the governmental plantations at Chimoio trials of Egyptian cotton obtained excellent results, and at present experiments are being conducted with American sorts, including Georgia, Sea Island, and Louisiana cotton. Last year the harvest reached 59 tons, 19 of which were produced by the Mozambique Company and the remainder by private planters. This year a much larger expanse of territory has been sown with both American and Egyptian seed, and the harvest is estimated to reach 300 tons. Shipments of Mozambique cotton to Liverpool were declared by merchants there to be of good quality, and it obtained high prices.

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TARIFFS.

NEW SCHEDULES.

THE REPUBLIC OF PARAGUAY.

CHANGES MADE BY THE NEW LAW—FREE LIST NOT AFFECTED.

Consul Ruffin, of Asuncion, reports on changes made in the customs law of Paraguay which went into effect March 15. The consul explains that the rating of values of 1905 continues and that the percentage of duty to be paid remains as fixed by the law of September 21, 1899. The following synopsis is furnished by the consul:

ARTICLE 1. First. 35 per cent ad valorem: All merchandise which is not mentioned in this law as paying a special duty and all that is not exonerated from duty.

ART. 2. Second. 2 per cent ad valorem: Iron in bars and plates; copper in bars, plates, and linget; steel in bars, plates, and lingets; precious stones and pearls in loose state.

Third. 5 per cent ad valorem: Gold and silver jewelry, with or without stones or pearls; sewing-machine needles; scientific instruments, with or without handles adorned with gold, silver, or platinum; sewing machines, spades, picks, Portland cement; gold and silver watches, with or without stones or pearls; sewing and embroidery silk, wheat, utensils of gold or silver.

Fourth. 15 per cent ad valorem: Tarpaulin, cast iron in bars or lingets, fiber mats, fire bricks, plain zinc in plates up to No. 4 cut for can making, zinc in bars or lingets, and common salt.

Fifth. 20 per cent ad valorem: Balls, ammunition for hunting, galvanized or plain iron, galvanized for roofing; flour; marble, unpolished, for furniture and buildings, and ordinary powder.

Sixth. 25 per cent ad valorem: Ordinary firearms for hunting, bramant linen, cotton blankets up to medium, cotton goods for clothing and shirts, cotton shawls and ponchos, cotton jerseys, prints, fine powder, jute, ordinary hats, stuffing, woolen junk, woolen caps, and oilcloths of all numbers, and crude texture called lienzos.

Seventh. 40 per cent ad valorem: Vegetable, animal, and mineral oil, with the exception of petroleum; cotton and jute bags, crystals in general; printed books that may have covers of tortoise shell, mother-of-pearl, ivory, or imitation pearl, or those which may bear coverings or embossings of gold or silver, or plated or adorned fine leather; billiard-table covers, porcelain, hats other than the classes mentioned in this law; textiles and all articles of animal and vegetable silk, or mixed in general, excepting those specified in this law; bridal veils, common wines in caskets, and felt hats.

Eighth. 55 per cent ad valorem: Alfalfa, firearms, loose barrels for same, excepting the classes mentioned in this law; red pepper in pod

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or ground, garlic, canary seed, rice, and harness in general, complete or not; shelled rice, articles of any cloth or textile made up or cut out to pattern; valises, trunks, portmanteaus, traveling bags; vetches, and other dry vegetables; sword walking sticks; coffee, ground and in berries; shoes, made up or in pieces; onions, beer in any form, cigars and cigarettes of all classes, fire rockets, articles of artificial fireworks, tanned hides and skins, alcoholic drinks packed in all forms, carriages made up and knocked down (in regard to carriages, a special law was made admitting them free of duty, which terminates next May, but probably will be prorogued); sweets, all classes of confectioneries; comfits, not medicinal; brooms, knickknacks and biscuits, corn in grain and on ear, peanuts, butter, lard, billiard tables and their accessories, saddlecloths, bellybands, saddle bands, and all articles of saddlery made up or cut out, furniture made up or in pieces, potatoes, bridle rings, cords of silk or mixed, with or without metallic thread; perfumery in general, cheese, ready-made clothing, tobacco in leaf or prepared, black or natural; wines in bottles and fine wines in caskets, as Oporto, Jeréz, Madeira, Moscatell, Nebiolo, Manzanilla, and sparkling; matches of all classes and commercial blank books.

Ninth. 80 per cent ad valorem: Alcohol up to 79 centesimals, packed in whatever form; rum, packed in any form; and playing cards.

FREE LIST UNAFFECTED.

The articles which were put on the free list by the law of September 21, 1899, still remain unaffected, and are as follows:

Telegraph wire, animals of pedigree, and cattle for breeding purposes, plows, hose, drills for mining, bicarbonate of impure soda, fire extinguishers and accessories, common empty bottles of at least a pint capacity, railroad switches, iron tubes unpainted and ungalvanized for gas or waterworks, which have at least 75 milimeters in diameter (about 3 inches), as also for the making of iron beds, which must have from 35 milimeters in diameter up (1½ inches up), coal, carburet of calcium, ungrained barley, soda ash, railway wedges, empty demijohns, staves, specifics for curing cattle exclusively and which are not similar to those manufactured in the country fruits and fresh vegetables, terraqueous globes, wire staples, scythes, implements and furniture of immigrants of little value, scientific instruments, with the exception of those that have handles adorned with precious metal, printed books, with the exceptions indicated, locomotives, cutlasses or machetes, machines and their repair parts for industrial and agricultural establishments and for steamboats, materials and accessories exclusively for printing and lithographing, turntables, printed music, impure naphtha for combustion, windmills, objects for religious services having come directly for the curates, fresh fish, plants, and branches of same to be cultivated, sealed gold and silver (gold and silver money), and gold in grain form, in paste or powder, special powder for mining, resin for the manufacture of soap, wheels, with or without axles, for trains and trams and those for trucks of industrial and agricultural establishments, steel and iron rails, seeds which are not destined to be consumed, silicates of soda, liquid or dry, for art purposes, sulphite of crude copper for agriculture, rock salt for ranches (cattle), Roman cement, liquid pitch, wire stretchers, steel and iron wire, galvanized or not, up to No. 14, inclusive, for fencing purposes, barbed steel and iron wire for the same purpose.

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Jewelry.—Cases in which jewelry, etc., come are to be manifested apart from their contents.

Delft, glass, and porcelain, which come with other articles will be weighed apart, adding 25 per cent tare for brute weight to the delft and glassware, and 30 per cent ditto for porcelain and crystals.

Drinks.—For those which come in bottles the duty will be applied on each bottle of 501 millilters (135 fluid drams) to one liter (2.113 American pints), considering as half bottles those which contain more than 270 to 500 millilters (62 to 135 drams), and quarter bottles which contain from 200 to 250 millilters (54 to 67 drams), also those of less capacity, will be computed according to contents. It is understood that the capacity of the bottles will be taken from the lower part of the necks of same.

Ready made articles and clothing.—These will be weighed together with all the material with which they are packed and rated accordingly.

Leather and tanned skins.—These, too, will be weighed with packing and rated accordingly.

Drugs, paints, and chemical products will be weighed with their respective packings, as barrels, tins, boxes, etc., with the exception of those in which the manner of packing is expressly determined, in which case it will be necessary to weigh only the first package. In respect to chemical compositions not specified, expressed, or mentioned, they will be rated according to the principal element of their contents.

Electric and other articles of illumination which come in bales, bags, or rolls will be weighed as brute weight; those coming in any other condition will be weighed together with the paper, packing, cardboard boxes, cardboard, etc., except those in which the manner of weighing is expressly determined. Lamps, although they have plate or base of iron, will be considered of bronze, nickel, or nickel-plated.

Hardware, naval articles, wood, and machinery, which come in bales, frames, bags, or rolls, will be weighed as brute weight; those coming in any other condition will be weighed with the paper, packing, cardboard boxes, cardboard, etc., excepting those whose mode of weight is specially determined. The numeration of wire will be English.

Musical instruments will be taxed according to their weight, including paper, boxes, and packing, and the duty will equally apply to instruments finished or not.

Mercenary: Stationery, and articles of bazaar will be weighed together with their cardboard boxes, bales, cardboard, paper, and packing, although these may come separated from the articles, their being always in the same package, excepting those whose mode of weighing is expressly determined. For applying the duties to this section, imitations worked with animal fibres and artificial fibres, will be considered as silk.

Furniture.—All furniture, without exception, should be detailed, declaring the quantity by units or dozen, according to each corresponding class of value. The duties will be paid equally on furniture finished as unfinished. Fine and extra fine furniture whose value exceed the corresponding duties established in this section, due to its richness, quantity, or quality of adornments which it has, be they sculptures, bronze, gold embossments, or paint denominated as Vernis-Martin

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lacquered or others, and those not specified, will have their values declared.

Hats, where duty is levied according to weight, will include paper, boxes, and packing.

Saddlery, where dutied according to weight, will include the packing also. Same applies to *textiles*, when in bales, brute weight.

Cloth will be considered mixed which contains up to 70 per cent of the fiber of greater value.

Shoes are considered infant's up to 6⅞ inches, children's to 8¼ inches, men and women's above this.

BRAZIL.

PROPOSED INCREASE OF COFFEE TAX.

Mr. Charles Richardson, chargé d'affaires, forwards to the State Department from Petropolis the correspondence between the president of the State of São Paulo and the President of the Republic of Brazil in regard to the valorization scheme which has been strongly urged by a convention held by the States of Rio de Janeiro, Minas Geraes, and São Paulo.

Señor Jorge Tibiricá, president of São Paulo, presided over the convention, which recommended legislation by the Federal Congress to impose the coffee tax, and also the convening of that body in extra session for the purpose of enacting the desired law. This legislation is urged mainly for the purpose of reimbursing coffee planters for losses sustained by reason of the appreciation of silver and the consequent large advance in Brazilian exchange. It is proposed to create a loan of about $70,000,000, from which planters are to be reimbursed for losses; this loan to be liquidated through a sinking fund to be created from an increase in export tax on coffee. The outcome of the project, although uncertain, seems probable, in view of the strong voting strength in the Brazilian Congress of the three States which favor the proposed legislation. The President of the Republic, however, declined to call an extra session of the National Congress as requested by the convention.

ACTION OF THE PRESIDENT.

The Brazilian Review, which publishes the correspondence between the President of the Republic and the convention, contains the following article under the caption "Coffee valorization:"

From the official correspondence published between the President of the Republic and the president of the State of São Paulo, it will be seen that Dr. Rodrigues Alves (President of Brazil) has decided neither to give his formal approval to the convention nor to convoke an extraordinary session of Congress to discuss it. These decisions have been sharply criticised by many who are naturally in a hurry to see coffee prices higher, but they will be generally recognized as entirely reasonable. Nothing but embarrassing complications could have resulted from the special convocation of the expiring Chamber of Deputies so near the legal date for the meeting of the new one, and as

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for the formal approval of the convention by the President of the Republic it is at least a very plausible point of view that, seeing what has become the central idea in the plan adopted is dependent on Congress, the approval by the President of the Republic would be meantime premature.

OUTLOOK FOR THE PROJECT.

Although, therefore, it is pretty certain that Dr. Rodrigues Alves individually does not approve of the plan adopted at the Taubate convention, and therefore would not stretch a point to hurry it on, yet there is no reason to think that he will in any way endeavor to influence the decision of Congress against the project. That being so, and seeing valorization has naturally many friends, we consider its adoption by Congress as more than likely. Naturally there will be modifications and compromises as to details, and whether the project as voted will be found realizable is decidedly questionable.

Among the senators understood to be in favor of valorization are Señors Pinheiro Machado and Ruy Barboza, and their influence secures the votes of Rio Grande and Bahia at the least. It is therefore calcucated that these two States, along with S. Paulo, Minas, and Rio, besides Ceara, which has also pronounced itself, will give a vote of over 100 deputies, the total voting power of these six States being 127 out of the 212 deputies that compose the Chamber. A majority in the Chamber in favor of valorization would thus seem to be secured unless it should be opposed either by Dr. Affonso Penna or Dr. João Pinheiro, which would mean the losing of the Minas vote, 37 strong. This contingency is, however, quite improbable in view of the part taken in the convention by Dr. Francisco Salles, the much esteemed president of Minas. Besides the State of Minas is pronouncedly protectionist.

COLOMBIA.

MODIFICATION OF DUTIES.

The Colombian Government has issued several decrees modifying import duties on certain goods. The following articles are added to the free list: Coal, Roman cement, iron boats or parts thereof, and iron rails for railways, whether or not for the public service. A surtax of $4.14 per hundredweight is imposed on foreign flour dispatched from Colombian ports on the Atlantic to any port on the Magdalena River from Calamar, whether for local consumption or for that of other villages. The import duties on tobacco now are: Cigars, $3 gold per kilogram (2.2 pounds); cigarettes, $3.50, and all other forms $1.50 per kilogram.

By a decree which comes into force in June, the period of 40 days allowed to captains of vessels for the delivery of merchandise included in the manifest, but not produced when the vessel is discharged, is extended to 60 days.

FREE ADMISSION FOR COAL AND IRON.

Consul Ellsworth, of Cartagena, reports that the President of Colombia has issued a decree promulgated February 22, which declares that with the object of protecting enterprises that promote the material

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advancement of the country on the following articles now included in the first class of the customs tariff will be given free admission, namely: Iron and steel rails for railroads; iron in ships or in pieces; mineral coal, and Roman cement.

The term of forty days now conceded to captains of ships in which to deliver cargo conformable with the manifest, which was not delivered when the unloading of the ship was completed, is raised to sixty days.

The decree is to take effect one hundred and twenty days after promulgation, which will make it operative about June 20.

REDUCTIONS IN DUTIES.

Minister John Barrett, writing from Bogota, reports a few changes in the Colombian export and import duties, as follows:

The export duty of $2 per head on male cattle is eliminated, but the export duty of $6 per head on female cattle remains. The export duty on vegetable ivory is removed. The export duty on woods, in any weight or size, is reduced to $1 per ton. The import duty on claret and white wines in bottles (described as fourth class) is 3 cents plus 70 per cent per kilogram. The same wine in casks, etc. (described as third class), pays a duty of 2 cents plus 70 per cent per kilogram. Sweet and dry wines, and all others not mentioned in the foregoing, in any packing and of any strength (described as eighth class), pay a duty of 20 cents plus 70 per cent per kilogram. These duties take effect from the publication of the Official Gazette, but wines already embarked for Colombian ports on that date, approximately one week ago, will only pay the duties previously enforced.

PERU.

MANY ARTICLES TO BE ADMITTED FREE OF DUTY.

A Peruvian law, dated January 27, 1906, modifies the tariff in the Department of Loreto. The substance of the law, which is to come into force one hundred and twenty days after promulgation, is as follows:

ARTICLE 1. In the custom-houses of the Department of Loreto the articles comprised in section 7 (which includes oils, soap, food, and groceries) of the customs tariff are to pay an import duty of 15 per cent on the valuation stated therein (instead of 10 per cent, as previously).

ARTICLE 2. The following are to be admitted free of duty: Live cattle; vessels, steam or other, put together or not, and naval stores; coal; tools and machinery of all kinds for agriculture and industry; rails and accessories, and all rolling stock for railways; coined gold; books and school requisites; furnaces for industrial use; copper stills for rectifying; pans of iron or copper weighing more than 46 kilograms; cups and other appliances used exclusively for the collection of rubber.

ARTICLE 3. All other merchandise imported shall pay 30 per cent on the valuation stated in the tariff, except gold and silver jewelry set with precious stones, and unset precious stones, which shall pay 3

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per cent; gold and silver manufactures, which shall pay 10 per cent; and wooden matches, which shall pay the specific import and consumption duties fixed by the tariff.

ARTICLE 4. All rubber exported through the same custom-houses, whatever its class or quality, shall pay a duty of 20 centavos per kilogram (gross weight), or 24 centavos (net weight), when not packed in cases.

ARGENTINA.

NEW HYDRAULIC CRANE DECREE.

Mr. A. M. Beaupré, minister to Argentina, transmits a translation of an official decree regulating the use of hydraulic cranes in the ports of Buenos Aires and La Plata. The working schedule of the cranes during May, June, and July is from 7.30 to 11.30 a. m. and from 12 m. to 4.30 p. m.; during the other months of the year from 6.30 to 10.30 a. m. and from 12 m. to 5 p. m. Outside of these hours the cranes shall be operated only on the request of interested parties who have paid the customs duties, and pay additional to regular charges $7 gold for the use of each crane, and $22 for the opening of bridges up to 12 p. m. and $44 after that hour.

Another proviso requires crane charges to be "paid on volume by all merchandise that pays storage on this basis at the rate of a cubic meter per ton, except empty bottles, which shall pay on weight. To the weight of merchandise invoiced at net weight 10 per cent shall be added for the packing. In case of liquids in pipes and hogsheads which have a definite capacity, 2 pipes or 4 hogsheads shall be computed to the ton. To other casks there shall be added 10 per cent to the capacity for the packing. Merchandise that pays storage on their value shall pay the winch on their weight."

For the use of winches in handling coal at La Plata there shall be charged 15 cents gold per ton or fraction of a ton.

HONDURAS.

NEW CONSULAR CHARGES OF REPUBLIC.

Consul William E. Alger, of Tegucigalpa, furnishes the new consular tariff of Honduras, which takes effect June 1:

1. Consular invoices: Value not exceeding $50, $1; $50 to $100, $2; $100 to $500, $4; $500 to $1,000, $6; above $1,000, 25 cents for every $100 or fraction to $5,000; from $5,000 up, 10 cents for each $100 or fraction.
2. Registry births, deaths, marriages, certification as to civil state, citations, notifications, naming experts, or similar acts, $2.
3. Registry of contracts, protests, wills, powers of attorney, or other notarial acts, $5.
4. Placing or removing seal, $3.
5. Presence at taking inventories, sale of lands, administration of same, or for deposits in consulate, 1 per cent of cash, one-half per cent on balance.
6. Entering and clearing Hondurenean vessel, including all necessary papers, if under 100 tons, $10; over 100 tons, $20; when called

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on to intervene between captain and crew, visiting vessel on account damage, time occupied in office $1 per hour, outside of office, $2.

7. Visé passports, manifests, etc., each, $1.
8. Visé of or extending bill of health, $2.
9. Intervention in sale of vessel, under 100 tons, $10; over 100 tons, $20.
10. Each set of manifests, $5.
11. Provisional patent to fly Hondurenean flag while en route to Hondurenean port for matriculation, $5.
12. Crew list, $3.
13. Noting changes in crew list, $1.50.
14. Arbitration, $10.
15. Extending passports when requested, $2.
16. Visé passports when requested, $1.
17. Deposit of documents in consular archives, $1.
18. Authentication of signatures, each document, $5.
19. Copies of documents authorized or deposited, $1 for first copy, 50 cents for following copies.
20. If authorization outside of office, in addition to expenses, $2 for first, $1 for succeeding hours.
21. Certification of manifest of vessel in ballast, $2.
22. Certification as to consular invoices which have gone astray, $2.

No charge is to be made for services when requested by the authorities of country where consul resides. Fees to be collected in money of country where service is performed.

PANAMA.

REVISED RATES OF DUTY.

Consul James C. Kellogg, of Colon, sends the following revised rates of duty promulgated at Panama:

Merchandise of all kinds (excepting those below specified) pay on the declared consular invoice, 10 per cent.
Coffee, per 100 pounds, $8.
Matches, per kilo, $0.30.
Salt, per 100 pounds, $2.
Rum, brandy, gin, and whisky, per liter, $1.50.
Liqueurs of all kinds, per liter, $2.
Bitters, per liter, $0.60.
White wines and claret, per liter, $0.10.
Sherry, port, malaga wines, and vermuth, per liter, $0.20.
Beer and ale of all kinds, per liter, $0.20.
Sparkling wines, per liter, $1.
Champagne, per liter, $2.
Alcohol of 42 grades, per liter, $1.
Alcohol of more than 42 grades, per liter, $1.50.
Mineral waters and medicinal wines, 25 per cent.

FREE LIST.

Animals for breeding purposes, ice, guano, plants, seeds, shoots, sprigs of vine, machines whose weight does not exceed 1,000 kilos,

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machines for making roads, cars, material for railroads, telegraph machinery, mineral, coal, boilers, iron bridges, boats for navigation in waters of the Republic and material for their construction, printing, bookbinding, and lithographing materials; also books sent through the mail.

TOBACCO CONCESSION.

The Government of Panama sold the right of importing tobacco and cigars to a large firm in Panama, which has had this concession for several years, for $21,250 for the period of ten months commencing March 1, 1906. The payments to the Government are to be made as follows: $5,000 on the approval of the contract, $5,450 on April 1, $5,400 on July 1, and $5,400 on October 1. The contractors were required to furnish bond to the amount of $5,312.50. Anyone can import tobacco, but the duties must be paid before the article is landed on the wharf.

As the time drew near for the last tobacco concession to expire, it was rumored that the Panamanian Government, in accordance with article 38 of the constitution of the Republic, which prohibits monopolies, would refuse to grant any more concessions of this kind. The granting, therefore, of this monopoly came as a great surprise to everyone.

Smuggling is punishable by confiscation of the tobacco and a penalty according to the value of same.

CUBA.

RECENT CUSTOMS DECISIONS.

The Cuban Oficial Gaceta announces that emery cloth is not to be classified as sandpaper, but will be dutiable as the tissue used in its manufacture.

Another official order is that capsules for the manufacture of aërated waters (each capsule producing 1 liter of water) are to be assimilated to "artificial water in liter siphons," and are to pay on importation one-half centavo each.

SPAIN.

CLASSIFICATIONS AND DUTIES.

A report from Consul-General Benjamin H. Ridgely, of Barcelona, gives rates of the new tariff on principal articles and commodities that will be of interest to merchants and manufacturers of the United States. It has been officially announced that during the month of May the Government will consider and decide complaints raised against the new tariff, which goes into effect July 1 next. The following paragraphs are taken from the official announcement:

The second scale of duties will be applied to the goods of all the countries which concede their lowest duties to Spanish products, provided that in the opinion of the Government such duties show sufficient reciprocity to warrant this concession.

The first scale of duties will be applied to the products and merchandise of all the other countries.

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The Government, moreover, will be able to impose such surcharges on the first scale of duties of the tariff as it may deem necessary upon the goods shipped from or of the origin of countries whose customs regulations place Spanish products or merchandise under particularly unfavorable conditions.

Surcharges can also be imposed on goods which are favored by export bounties in the countries where they are produced.

The produce of countries outside Europe, but imported from European countries, will pay the surtax provided for by the special tariff No. 3.

All duties mentioned in the tariff will be paid in gold from the date on which it comes into force. These payments may be made as follows:

First. Gold Spanish coins.

Second. Gold coins of the nations forming the Latin Monetary Union.

Third. Notes of the banks of France and England.

Fourth. Bills or checks on Paris, London, Brussels, and Berlin, provided they are drawn in francs, pounds sterling, and marks, respectively, and duly guaranteed.

Amounts below 10 francs are excepted, as also duties payable upon verbal declaration of travelers, which may be paid in silver at the average rate of exchange for francs during the month preceding that on which the payment is made.

The duties will be revised every five years.

All decrees, orders, and instructions of whatever kind which may be opposed to the terms of this tariff are hereby canceled.

THE NEW RATES.

The annexed list gives the new duties on some of the principal lines of goods. Except when otherwise stated the basis for duty is 100 kilos, and the rate is in pesetas. (Kilo=2.2046 pounds; peseta=19.3 cents.)

Articles and commodities.	Scale I.	Scale II.
	Pesetas.	*Pesetas.*
Coal, per 1.000 kilos	2.50	2.50
Coke and patent fuel, per 1.000 kilos	4.00	4.00
Tar, pitch, crude creosote, and schist	.20	.20
Crude petroleum	30.00	30.00
Lubricating oils	50.00	50.00
Minerals including phosphates, per 1,000 kilos	.25	.25
Common white glass bottles, etc	9.00	9.00
Photographic plates	50.00	50.00
Mirrors	100.00	100.00
Iron pigs	1.40	1.40
Iron, scrap	1.00	1.00
Rails, over 25 kilos in weight	6.00	4.20
Rails, under 25 kilos in weight	7.00	5.60
Iron and steel plates over 5 mm. thick	10.00	7.20
Iron and steel plates of 1 to 5 mm. in thickness	11.00	8.00
Iron and steel plates of less than 1 mm. in thickness	13.00	10.00
Tin plates	18.00	14.00
Cast-iron pipes	6.00	5.00
Iron and steel pipes up to 10 mm. thick	9.00	7.00
Joinings for pipes	10.00	8.50
Cast-iron columns	4.00	4.00
All other rough iron or steel castings weighing over 100 kilos	14.00	10.00
All other rough iron or steel castings weighing 25 to 100 kilos	16.00	12.00
All other rough iron or steel castings weighing 1 to 25 kilos	20.00	16.00
All other rough iron or steel castings weighing under 1 kilo	25.00	20.00
Iron and steel wheels weighing over 100 kilos for locomotives or for railway cars	20.00	13.00

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The new rates—Continued.

Articles and commodities.	Scale I.	Scale II.
	Pesetas.	*Pesetas.*
Blocks	25.00	18.00
Steel springs not made of wire	13.00	11.00
Iron and steel wire over 5 mm. thick, unpolished	9.00	7.00
Iron and steel wire over 5 mm. thick, polished or coated with some other metal	12.00	10.00
Wire of 1 to 5 mm. gauge	13.00	11.00
Wire under 1 mm	18.00	15.00
Steel wire cables	28.00	24.00
Wire fencing and netting wire springs, and wire cloth when the wire is over 1 mm. gauge	18.00	18.00
Fine wire gauze, provided there be not more than 40 strands to the square centimeter	40.00	30.00
Fine wire gauze with more than 40 strands per square centimeter	110.00	90.00
Locks and keys	75.00	60.00
Locks and keys, when made with other metals	100.00	75.00
Cooking and heating stoves	40.00	35.00
Safes	60.00	48.00
Iron beds and other household furniture, excepting kitchen utensils	40.00	35.00
Saws and files	60.00	60.00
Other iron and steel tools weighing over 1 kilo	55.00	55.00
Kitchen utensils made of cast-iron or steel, unpolished or coated with any other metal	10.00	10.00
The same when polished, galvanized, tinned, enameled, or with a coating of any other metal	25.00	20.00
Kitchen utensils made of iron or steel plates, unpolished	60.00	45.00
The same when polished, galvanized, or enameled, including those made of tin	100.00	80.00
Sewing needles, fishing hooks, and parts of watches, per kilo	4.00	4.00
Cutlery, per kilo	3.00	3.00
Scissors, per kilo	4.50	4.50
Short firearms and parts of same, per kilo	8.00	8.00
Other firearms which are allowed to be imported, and parts of same, per kilo	20.00	20.00
Brass, bronze, and copper wire from 1 to 10 mm. gauge	60.00	40.00
Brass, bronze, and copper wire when finer than 1 mm. gauge	70.00	50.00
Copper, bronze and brass sheeting	35.00	30.00
Silver-plated goods, per kilo	9.00	6.00
Cocoanut and palm oil	8.00	8.00
Other vegetable oils, excepting olive oil	27.00	27.00
Sesame, flax, and other oil seeds, including copra or cocoanut	1.00	1.00
Animal products used in medicine	5.60	5.60
Liquid or solid vegetable dye extracts	5.00	5.00
Varnish	36.00	30.00
Writing ink	45.00	37.50
Printing ink and shoe blacking	30.00	25.00
Colors obtained from coal, per kilo	2.50	1.30
Superphosphates	.05	.05
Fenic acid, naphthaline, and other similar antiseptics, per kilo	1.00	1.00
Alum	2.25	2.25
Caustic soda	3.00	3.00
Medicines containing sugar or saccharine, without alcohol, per kilo	4.00	4.00
Medicines containing sugar or saccharine, containing alcohol, per kilo	3.00	3.00
Wheat and rice starch and maizene	40.00	30.00
Starch for industrial purposes, including potato starch	3.00	2.40
Dextrin	5.00	4.00
Mineral and vegetable wax, in bulk	45.00	35.00
Stearin	35.00	25.00
Paraffin wax	40.00	30.00
Common soap	20.00	15.00
Perfumes, with alcohol, per kilo	5.00	4.00
Other perfumery and essences, per kilo	4.00	2.40
Raw cotton	1.30	1.30
Medicated cotton, per kilo	.50	.50
Oak staves	.10	.10
Railway sleepers	.40	.40
Ordinary wood boards, from 40 mm. thick upward, cubic meter	6.00	5.00
Wooden casks for liquids, set up or in pieces	10.00	10.00
Other casks and packing cases, set up or in pieces	2.10	2.10
Bent ordinary wooden furniture, set up or in parts	100.00	70.00
Other ordinary wooden furniture, not carved or veneered	75.00	50.00
Furniture made of fine woods or veneered, when not carved or inlaid with metals	100.00	75.00
Same when carved or inlaid but not upholstered	150.00	120.00
Raw hides, dry	4.40	4.40
Raw hides, fresh salted or not salted	3.00	3.00
Glazed skins, per kilo	4.00	3.00
Tanned skins weighing over 12 kilos per dozen, per kilo	3.00	2.00
Leather belting, per kilo	3.00	2.50
Shoes, per kilo	12.00	8.00
Casings	20.00	20.00
Surgical instruments, per kilo	5.00	5.00
Optical instruments, per kilo	15.00	15.00
Gold watches, each	20.00	15.00
Silver watches and those of other metals, each	4.00	2.00
Works of clocks, and parts of same not otherwise provided for, and chronometers, per kilo	5.00	3.50

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The new rates—Continued.

Articles and commodities.	Scale I.	Scale II.
	Pesetas.	*Pesetas.*
Typewriting machines and parts of same, per kilo	15.00	15.00
Phonographs, gramophones, and the parts of same, also the records, per kilo	10.00	7.00
Arc lamps and parts of same, per kilo	4.00	2.50
Incandescent electric lamps, per kilo	15.00	10.00
Locomotives weighing over 35 tons	20.00	20.00
Engines weighing less than 35 tons, marine engines and parts of same	40.00	40.00
Machine tools weighing up to 500 kilos	30.00	30.00
Machine tools weighing more than 500 kilos	24.00	24.00
Bicycles, per kilo	3.00	3.00
Motor cars with two seats, each	1,400.00	1,400.00
Motor cars with four seats, each	2,000.00	2,000.00
Motor boats, per ton measurement	25.00	25.00
Hams, salt pork, bacon, and lard	75.00	50.00
Butter margarine	85.00	70.00
Dried cod	36.00	24.00
Wheat	8.00	8.00
Wheat flour	14.00	14.00
Sugar, glucose, etc	85.00	85.00
Coffee beans from Fernando Po	105.00	105.00
Coffee beans from other countries	140.00	140.00
Canned meats	40.00	25.00
Sardines in tins, per kilo	.75	.50
Other alimentary preserves, sausages, mustard, and sauces, per kilo	2.00	1.50
Cheese, per kilo	.80	.60
Rubber shoes, per kilo	4.00	3.00

The export duties are also altered. Following are the new rates per 100 kilos unless otherwise stated:

	Pesetas.
Cork in slabs	5.00
Cut corks in squares, per thousand	3.00
Old rags of linen, cotton, or hemp	2.00
Woolen rags	1.00
Iron ore	.02
Copper ore	.16
Copper ore partly fused	2.00
Argentiferous lead	1.00
Galena and litharge and other lead ores	1.50

EFFECT ON AMERICAN PRODUCTS.

The new tariff seriously affects certain American products, some favorably and some unfavorably. One of the first features that strike the observer here, looking at the tariff from an American standpoint, is the largely increased duty on typewriters. Heretofore typewriters have paid 8 pesetas silver (equal to about $1.30 U. S. gold) per kilo. Under the new tariff they will pay 15 pesetas gold, equal to about $2.90. As the ordinary typewriter weighs from about 15 to 16 kilograms, this would mean a duty of from $45 to $46.40 on each machine. The ultimate purpose of this elevated scale is evidently to shut foreign typewriters out of Spain and foster the big manufactory, which it is said is to be at once established at Barcelona. Our typewriters were just beginning to make their way here, and a big business was predicted for the next five years. Unless American manufacturers can meet the increased duties by cutting their prices, however, they must not hope to do much business after the new law becomes effective, as their prices, even under present conditions, are very high here as compared with those of the German machines.

Protests can be made at Madrid during all the month of April, but I doubt that these will be effective, though I have advised local repre-

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sentatives of American typewriters of the situation, and urged them to join in a vigorous protest.

ELECTRICAL AND HEAVY MACHINERY.

All foreign electrical machinery and devices will also be almost effectively shut out of Spain by the new schedule, which raises the duty to the surprising figures of 1 peseta gold (19.3 cents) per kilogram. This will hurt Germany, France, Switzerland, England, and the United States. The electrical industry has been steadily growing in Spain, particularly in Barcelona, during recent years, and the new schedule is designed solely for the protection of home industries.

Heavy machinery is also affected, as it must now pay 25 pesetas gold ($4.75) per 100 kilograms, instead of 18 pesetas silver (about $2.90), as heretofore. Cash registers, hardware, household and kitchen utensils, and all similar manufactured articles, are also subjected to a considerably increased rate of duty. American phonographs, which now pay 8 pesetas silver ($1.30) per kilogram, will hereafter pay 10 pesetas gold ($1.93) per kilogram.

INCREASED DUTY ON AUTOMOBILES.

Automobiles, which were already burdened with a heavy duty, will hereafter pay a still heavier schedule, the rate having been increased from 1,300 pesetas silver (about $200) on automobiles of four seats to pesetas 2,000 gold ($386); and from pesetas 975 silver ($160) to pesetas 1,400 gold ($270) on automobiles of two seats. In short, all along the line of machinery—electrical, agricultural, and industrial—as well as machine tools and nearly all manufactured articles, the tariff is considerably increased. The purpose of this is, of course, to protect Spanish industries which are already considerably developed, and which, it is believed, will now be largely increased both in number and capacity.

LUBRICATING OILS BENEFIT.

But if certain American products are to suffer under the new tariff, there are others which gain. American lubricating oil, for example, which has heretofore been discriminated against in the tariff, will hereafter pay the same rate as all other lubricating oils pay, 50 pesetas gold (about $9.65) per 100 kilograms. Heretofore, while other lubricating oils have paid 50 pesetas silver per 100 kilograms, similar American oils have been forced to pay 60 pesetas. The new tariff will mean a very largely increased sale of our lubricating oils in Spain, and this increase will advance steadily, as there will be a largely augmented employment of good machinery and a proportionately increased demand for lubricating oils, of which ours are recognized as the best, but the sale of which has heretofore been limited because of the discriminating tariff. American oil can now come direct from the United States instead of being shipped from Antwerp, Liverpool, and Hamburg as oil of European origin.

TINNED BEEF AND MUTTON.

The new schedule also affords a brilliant field in Spain for the sale of tinned beef and mutton. These products have heretofore been kept out because of the prohibitive duty of 2 pesetas per kilogram. Here-

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after they are to pay 25 centimos (about 4.8 cents) when coming from favored nations, and 40 centimos (7.7 cents) when coming from the United States and other unfavored nations. This, I repeat, ought to open up a big field for our products. Our principal competitor will be the Argentine Republic, and it is believed as a matter of fact that the decreased rate of duty was made solely in the interest of that country. The process of tinning and packing ought to be much cheaper in the United States than in the Argentine Republic, however, and if this conclusion is correct we shall be able, with our superior products, to occupy and hold the market. Importers of tinned meats are jubilant over the prospect in any event, and it is confidently believed that these products will soon be immensely popular in Spain, where all fresh meat is dear and generally poor.

SEWING MACHINES.

The situation as to American sewing machines is also bettered. These machines are subjected to a general tariff of 70 pesetas gold ($13.51), instead of 70 and 84 pesetas silver per 100 kilograms, as heretofore. This means that American sewing machines will no longer be discriminated against. Heretofore they have paid 84 pesetas silver, while similar machines from other countries have paid only 70 pesetas. In the future, as above indicated, all sewing machines, without respect to their origin, will pay the same rate of duty. This ought to give a fresh impetus to American sales in Spain.

RAW COTTON AND STAVES.

The most important—in fact, the backbone—of imports from the United States into Spain is raw cotton. This American product is a basic necessity of the Spanish textile industry, and very naturally the rate of duty has not been materially changed. The duty hereafter will be 1.30 pesetas gold (about 25 cents) per 100 kilograms, instead of 1.50 pesetas silver (about 24 cents).

The new tariff also favors American staves, which represent a large percentage of American imports into Spain. Heretofore there has been a discrimination in the tariff of 50 per cent against staves coming from the United States. Under the new tariff however, oak staves, irrespective of their origin, will pay the same duty, viz, 10 centimos (1.9 cents) per 100 kilograms. The former schedule was 15 pesetas per 1,000 staves on staves coming from the United States and 10 pesetas per 1,000 on staves coming from other countries.

HAMS, LARD, AND BACON.

These products, already paying a heavy duty, are burdened with a still heavier rate under the new schedule. Heretofore these products have paid 50 pesetas silver (about $7.50) per 100 kilograms; hereafter they must pay 75 pesetas gold (about $14.47) per 100 kilograms. American hams and fat bacon have recently made great progress in Spain, at the expense of the English and German article, and it is certain that they will continue to hold their own in spite of the increased tariff, which fortunately does not discriminate against the United States. The question is as to whether or not Spain will continue to use these products largely if the prices must be advanced to meet the new duties.

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GREAT BRITAIN.

EXPORT TAX ON COAL REPEALED.

Consul D. W. Williams, writing from Cardiff, Wales, says:

The British Government has announced the repeal of the export tax on coal, which will take effect on November 1, 1906. This tax was first imposed in 1901, partly as a war tax, and partly to arrest the selling of the famous Welsh steam coal to foreign navies. The tax was at the rate of 1 shilling on the ton on all coals graded above 6 shillings a ton, and it proved such a handicap to the Welsh coal trade that all operators as well as miners united in demanding its repeal. The Bristol Channel ports exported 20,801,598 tons of taxed coal in 1904, and 20,105,890 tons in 1905, and the tax in 1905 amounted to £863,204. Of this amount Cardiff alone paid £595,174, or about $3,000,000.

The removal of such a burden has pleased the miners greatly, for they anticipate an increase of wages. The removal will also enable Welsh coal men to compete more freely in foreign markets, especially in the South American ports. The fact that the operators and miners have entered into a four-year agreement, which began January 1, 1906, will enable the Welsh operators to enter into long contracts with the South Americans. The result of this will be to increase largely the trade between Britain and South America, for Britain needs grain and meat, which are South American staples, and the exchanging of coal for them gives British shipping two paying freights, which in turn will promote the trade. The general effect on Welsh coal is an advancement in price, and the best Cardiff coal is now quoted at $3.65 to $3.77, although the highest quotation on January 1, 1906, was only $3.16.

PORTUGAL.

TARIFF AND OCTROI DUTIES ON FRUITS.

Mr. Charles Page Bryan, minister to Portugal, furnishes a statement of the Portuguese tariff and octroi duties on fruits:

There is no special duty on dried or fresh fruits. General duties: 60 reis[a] per kilo on dried or fresh fruits; fresh grapes and plums, under 5 kilos, for table use, 60 reis per kilo; above 5 kilos, 200 reis per kilo. All sugared fruits pay 200 reis per kilo.

Following are the octroi duties on fruits at Lisbon per 100 kilos:

	Reis.
Melons	223
Unspecified fresh fruits	440
Pineapples	5,460
Mulberries and strawberries	2,406
Olives	440
Carob beans and unhulled sweet pine kernels	276
Almond kernels	6,551
Dried figs	1,203
Unspecified dried fruits	1,966

Consular district of Oporto.—Municipal taxes: Ten reis for each 15 kilos for both fresh and dried fruits.

[a] A reis is equivalent to an American mill.

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Consular district of Setubal.—No municipal tax or octroi on imported fruits; 1 per cent ad valorem export duty.

Consular district of Faro.—Municipalities of Lagos, Albufeira, and Villa Real de St. Antonio: No taxes on fruits. Municipality of Faro: Green chestnuts, 1 real per 2 kilos; figs, 1 real per kilo; melons and watermelons, 20 reis per dozen; mendui, 10 reis per 10 liters; apples and pears, 2 reis per kilo.

BULGARIA.

DECREE FIXING BASIS OF TARE ALLOWANCE.

A ministerial decree issued in Bulgaria fixes the basis upon which the weight of goods imported into that country is to be calculated for the purpose of levying duties. The following is a summary of the principal provisions of the decree:

Duties will be levied on the *gross* weight (*a*) when that treatment is expressly specified in the tariff, and (*b*) when the rate of duty does not exceed 10 francs per 100 kilograms. In cases where the "general" tariff rate exceeds 10 francs (franc, 19 cents) per 100 kilograms (kilo, 2.20 pounds), but the "conventional" rate does not exceed that standard, the duty will be levied on the gross weight.

A certain number of articles specified in the schedule appended to the decree are to pay duty on the *real net* weight, i. e., on the weight of the articles stripped of all their coverings; but a majority of articles are dutiable on the net weight arrived at by deducting from the gross weight an *official tare* rate fixed in the schedule.

Receptacles (such as baskets, demijohns, cases painted or unpainted, hampers, cans, boxes, sacks, barrels, etc.), the weight of which is, in accordance with the schedule, to be deducted from the gross weight, but which are susceptible of commercial use when empty, will be dutiable separately, according to kind, after deduction of their weight from the gross weight of the entire package. In case the receptacle is dutiable at a higher rate than that fixed for the goods, the receptacle will be dutiable separately, without its weight being deducted from the gross weight. In the case of goods dutiable on the net weight, but imported in unusual receptacles (i. e., receptacles not in conformity with the established usages of commerce and not suitable to the goods which they contain), no tare deduction is made, but the duty is levied on the entire weight, receptacle included. In addition, the receptacle is dutiable separately, according to kind.

An addition is to be made to the net weight of petroleum and other mineral lighting oils, raw or refined, when imported in tanks, tank wagons, etc., or in cans *without* cases, corresponding to the assumed weight of the usual receptacle (barrels, cans, cases, etc.). A similar addition is to be made to the weight of goods dutiable on the gross weight when imported without any packing.

RUSSIA.

EXPORT OF PLATINUM—INTERNAL TAXES.

Russia proposes to restrict the export of platinum, reports the British commercial agent at St. Petersburg. The minister of trade and industry proposes shortly to summon a special conference to consider the questions of (1) the prohibition of the export of raw platinum, (2)

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the imposition of an export duty on platinum, and (3) the construction of Government works for purifying platinum.

The Russian Government plans to put an internal tax of 42.8 cents per 100 pounds on paper for wrappers, 85.6 cents per 100 pounds on paper for printing and newspapers, and $1.42 per 100 pounds on writing paper. The 172 paper mills in Russia produce 108,000 tons per annum.

JAPAN.

RADICAL CHANGES IN RATES.

Consul-General Henry B. Miller, of Yokohama, furnishes a report on a tariff bill pending before the Parliament of Japan, which measure, with slight modifications, was enacted at the present session. Mr. Miller writes:

A comparison of the bill with the existing law reveals, first and foremost, a plan on the part of Japan to build up the country as a manufacturing power. She extends the conventional tariff to all countries by imperial ordinance. She prepares for retaliatory tariffs against countries discriminating against her vessels and products, and proposes also to prevent importations of bounty-made products of other countries. By extending the free list and modification of existing rates she encourages every form of manufacturing which is considered practicable for the Empire. Coal is to be free of duty; also ship's stores supplied to ships in open ports. Duties paid on imported materials used in the manufacture of certain articles for export (to be subsequently specified) are to be refunded.

This measure is estimated to increase the revenues several million dollars, and is designed as a temporary tariff law until the conventional tariff shall come to an end or be revived by special negotiations. One of the most commendable features of the new law is the effort to extend specific for ad valorem duties. This is a feature especially agreeable to American merchants from several points of view, and is considered of much benefit to American goods generally. The new tariff will take the place of the general tariff and the war tax known as the extraordinary import duty, but does not interfere with the consumption tax, which remains as before.

PROPOSED CHANGES.

Changes in many of the principal articles and commodities are given below, 100 sen equaling 1 yen or 49.8 cents American; 100 kin = 133 pounds:

Barley raised from .40 to .45 sen per 100 kin.

Wheat raised from .536 to .57 sen per 100 kin.

In 1904 the United States exported to Japan wheat to the value of $423,171 gold in round numbers.

Oats raised from .45 to .47 sen per 100 kin.

Cotton seed raised from .135 to .20 sen per 100 kin.

Fruits and vegetables in tins, including boxing, from an ad valorem of 30 per cent to 7.30 yen per 100 kin.

Tinned goods exported from the United States in 1904 aggregated, in round numbers, $800,851 gold.

Fruits and nuts from 30 to 45 per cent ad valorem.

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Fresh fruits from 30 per cent ad valorem to 4 yen per 100 kin.

Dried fruits from 30 per cent ad valorem to 8.10 yen per 100 kin.

Wheat flour is raised from 1.196 to 1.45 yen per 100 kin.

In 1904 the United States exported flour to Japan aggregating, in round numbers, $4,671,505 gold.

Oatmeal is raised from 25 per cent ad valorem to 4.42 yen per 100 kin.

Other flour from 25 to 30 per cent ad valorem.

INCREASE ON FLOUR EXPLAINED.

The raise in the tariff on wheat flour is one of the most important in its effect upon American trade, as this constitutes one of the large and growing imports into Japan. Seventy-two cents import duty on 133 pounds (100 kin) is a very high rate. A duty of over half a cent a pound will place this article of diet beyond the power of the masses to purchase, and must therefore reduce the consumption of American flour.

The new duty on wheat will be 57 sen per 100 kin, an advance of only 3½ sen. This will give a very comfortable advantage to the milling of wheat in Japan. Manchuria offers a satisfactory solution to the high tariff on flour. Japan has possession of Dalny, and there is no doubt but that she will establish free trade relations between the home land and this leased territory. The railway now owned by the Japanese Government, extending from Dalny north, reaches into the great wheat fields of the Sungari Valley in Manchuria, and also the great wheat plains and hills of Mongolia, now in grass, but susceptible of the highest production of wheat. This same railroad passes through the entre length of the fine grain-growing valley of the Liao. It is no doubt a part of the policy of Japan to make this most productive country the source of food supply for her millions of people at home, and use her railroad and her own ships to carry it. To accomplish this, and to make the investments in mills attractive, she places a high tariff on flour from other countries and subsidizes ships. With a railway, the rates on which the Government controls, with subsidized ships for bringing the flour to Japan, and a high tariff on foreign flour, investments in the mills at Dalny or Japan will certainly be very good. And as wheat can be put on the cars of the Japanese railway for half the price it is delivered on cars in the United States, there seems to be no reason why the flour for Japan should not be drawn from the fields of Manchuria and Mongolia. Several manufacturers of flouring-mill machinery are already in Japan negotiating for a supply of machinery for mills as soon as this Government measure becomes a law.

Ham and bacon raised from 1.36 to 1.40 yen per 100 kin.

Salted fish raised from 1.42 to 2 yen per 100 kin.

Article 7, section 17, provides that fish gathered by Japanese vessels shall be brought in free. This will exclude American ships bringing salted salmon to Japan, confines the shipping of salmon from Alaska to Japanese sailing vessels, and will operate as a discrimination against American shipping.

THE DAIRY INDUSTRY.

Condensed milk has been increased from 1.23 yen per dozen tins to 10 yen per 100 kin. This is one of the growing imports into Japan,

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and if prices could be maintained at a low level the importation would continue to increase. At present it is imported under the conventional tariff at a very low rate, but the heavy increase under the new tariff will, without doubt, check the importation. I am inclined to the view that this item also is raised with a purpose of encouraging production under Japanese control. There are splendid natural advantages in Japan, Korea, and Manchuria for the development of the dairy industry, and there seems to be a purpose to give this Japanese market to Japanese who will engage in the business within this territory.

COTTON GOODS.

While raw and ginned cotton remains on the free list there is a general advance in cotton yarns and cotton goods of every nature, and the new bill changes them from ad valorem to specific duties; but as cottons of almost every kind are specified in the conventional tariff this part of the law will not take effect until after 1910, the date of the expiration of the conventional tariff. The present duty on cotton drills is one and a sixteenth sen per square yard, and 10 per cent additional ad valorem as a consumption tax. The new tariff will be 6.3 sen per square yard, and 10 per cent consumption tax additional.

MANY INCREASES.

Butter, raised from 21 yen per 100 kin to 27 yen per 100 kin.
Margarine, raised from 11.60 yen per 100 kin to 23 yen per 100 kin.
Cheese, advanced from 12.90 yen per 100 kin to 17 yen per 100 kin.
Infants' food, advanced to 35 per cent ad valorem.
Other comestibles, raised from 30 to 40 per cent ad valorem.
Sugar is generally lowered.
Molasses, reduced from 2.37 yen per 100 kin to 85 sen per 100 kin.
Confectionery goes from an ad valorem duty of 55 per cent to a specific duty of 20 yen per 100 kin.
Jam, jelly, etc., advanced from an ad valorem duty of 40 per cent to a specific duty of 13 yen per 100 kin.
Vegetables and fruits, preserved with sugar, advanced from 40 per cent ad valorem to 8 yen per 100 kin.
In wines and liquors quite a change is noted in material increases.
Sole leather, raised from 5.69 yen per 100 kin to 13.30 yen per 100 kin.
Sheep leather, advanced from 18.36 yen to 22.40 yen per 100 kin.
Goat leather, advanced from an ad valorem duty of 10 per cent to a specific duty of 55 yen per 100 kin.
Crocodile leather, from an ad valorem duty of 10 per cent to a specific duty of 98.20 yen per 100 kin.
All other leather advanced from an ad valorem duty of 10 per cent to an ad valorem duty of 20 per cent.
Japan imported from the United States in 1904 sole leather to the amount of $1,780,532 gold, and "other leather" to the value of $389,309 gold.

METALS AND MACHINERY.

Under the subject of metals there are several items in the proposed tariff which demand attention.
Bar and rod iron exceeding one-fourth inch in diameter, is raised to 30 per cent ad valorem. (It now enters under the conventional tariff at .261 sen per 100 kin.)

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Rails, raised from .129 sen per 100 kin (under the conventional tariff) to .87 sen per 100 kin.

Inasmuch as it is probable that the Government will soon become the owner of all railroads in the Empire, the tariff on rails and all material for railways will come in practically free, or otherwise at the discretion of the Government.

Pipes and tubes raised from 10 to 20 per cent ad valorem.

Wire of all kinds, and sheet iron and sheet steel, and all kinds of manufactured iron, raised from 100 to 600 per cent.

Nails are raised materially, the new tariff raising the duty from .573 per 100 kin to 1.36 yen per 100 kin.

The raise in block and ingot copper is from 5 to 7½ per cent, and there is also a general increase in all manufactured copper.

Lead, block and ingot, raised from .316 sen to .38 sen per 100 kin.

The imports from the United States in 1904 in lead was $200,900, gold.

Mercury raised from 5.048 yen (conventional tariff) to 7.20 yen per 100 kin.

In 1904 the imports of mercury from the United States was $90,250, gold.

Tin plate raised from 10 per cent ad valorem (conventional tariff) to 20 per cent ad valorem.

The imports of tin plate from the United States in 1904 was $160,163, gold.

Tin leaf remains the same.

Zinc raised from 40 sen per 100 kin (conventional tariff) to 72 sen per 100 kin.

There is a very heavy increase in the tariff on paper, but as this is also covered by the conventional tariff it will not be charged against imports of this character from the United States at present.

Bicycles advanced from 35 to 40 per cent ad valorem, and the parts of same have a similar advance, with the exception of tires, that are changed from 35 per cent ad valorem to 95.60 yen per 100 kin.

Sewing machines. There is an advance in this line. The old rate was an ad valorem one of 10 per cent, while the proposed duty is fixed at 11.10 yen per 100 kin for hand power and 8.25 yen per 100 kin for foot-power machines. Parts of sewing machines are raised from 10 to 20 per cent ad valorem.

In 1904 the imports from the United States was $122,800 gold.

Typewriters show an advance from 10 to 20 per cent ad valorem.

Telegraph and telephone instruments raised from 15 to 20 per cent.

Boilers are raised from 10 to 15 per cent ad valorem.

The United States exported in 1904 this article to the value of $214,900 gold.

Engines of all kinds are raised from 10 to 15 per cent ad valorem.

Locomotive engines and electric motors imported from the United States in 1904 reached a total value of $583,000 gold.

Electric-light lamps, not exceeding 100 candlepower, are rated in the proposed tariff at 5.80 yen per 100. All others at 10.20 yen per 100.

This will provide a good protection to the new Japanese industry.

Machinery for metal and wood working, raised from 10 to 15 per cent ad valorem.

Scales and balances remain the same at 20 per cent ad valorem.

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Watches formerly paid a duty of 25 and 30 per cent ad valorem. The proposed tariff raises them to 40 and 50 per cent.

This increase, with many others of a similar character, is almost certain to work much injury to the American trade, as it will put high-class goods out of the reach of a great majority of purchasers and compel them to buy the cheaper European articles. Farmers' and mechanics' tools are changed from 10 per cent ad valorem to a much heavier rate of specific duty, ranging from 2.35 yen to 10.90 yen per 100 kin on some things and a 20 per cent ad valorem on others.

Spinning, weaving, and other machines, and parts thereof, remain at 15 per cent ad valorem.

Cotton underwear is raised from the already heavy rate of 3 yen per dozen to 4 yen per dozen, and all other kinds of underwear at about the same proportion. This is evidently based upon the idea of protecting the home industry.

Petroleum (illuminating oil) remains the same .096 sen per gallon.

Oregon pine, raised from 5 per cent ad valorem to 0.60 sen per 100 square feet, 1 inch thick.

Cheap metal jewelry, raised fron 10 to 60 per cent ad valorem. Much of this class of merchandise heretofore came from the United States.

Phonographs are advanced from 35 to 50 per cent ad valorem. The American trade in these machines has developed quite extensively.

THE PROTECTIVE POLICY.

The most important problem of Japan's future lies in the development of her fiscal system. Her growth along commercial and industrial lines, as is evidenced by the proposed new tariff, indicates the question is demanding the serious consideration of her statesmen. Japan has entered upon a protective policy, following the United States, and is shaping her course accordingly. She is preparing herself to meet the requirements of the oriental market and at the same time protecting her industries. Protection is the watchword of the Japanese, and in every line of commerce and industrial expansion the dominant idea of the Government and the people is to assist in every practical way the development of infant industries and the protection of the old ones.

By way of illustration, take a few of the articles which are materially affected by the proposed tariff for consideration in connection with the idea of protection. Paraffin is entered free. This is to foster the manufacture of candles and matches for the China trade. On the other hand, candles are advanced in duty. Alcohol is raised to a prohibitory rate, while molasses, with which the Japanese manufacture alcohol, is materially reduced. Leather is also materially advanced in order to protect the new industry of manufacturing, which promises much for Japan in the near future. Cotton goods are raised materially in order to protect the rapidly increasing spinning industry. These are but a few of the examples which tend to prove the protective policy of the Japanese. To this list might well be added the material advance in all kinds of comestibles used by foreigners in Japan, which will raise the cost of living to a considerable amount.

While Japan is admitting free the raw material in many cases, her scientists are daily experimenting with a view to produce this raw material. The fields of experimentation will be Korea and the leased territory of Manchuria, with such parts of China as are accessible. If these new fields can be made to produce, Japan with her superior mer-

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chant marine and other facilities will see to it that she offers the best market for the raw material. Japan has well-defined plans in this respect, and hopes by their solution not only to make herself independent, but to control the commercial destinies of Asia.

NEW ZEALAND.

NOVEL BONUS SYSTEM TO CHECK AMERICAN ENTERPRISE.

The Canadian Manufacturer, in its issue for April 20, contains the following announcement of a movement started in New Zealand against American goods:

New Zealand is waging war on a certain powerful American manufacturing concern which has set out to capture the New Zealand market in its line. It has adopted as its chief weapon in the fight a novel bonus system, and has established a new precedent in the interpretation of tariff laws which offers immense possibilities for development as a club in waging international trade wars.

It has passed an act providing that in the present emergency goods of British manufacture which compete with the American lines in question shall be deemed to be manufactured in New Zealand, and that the importers of such goods shall be regarded as their manufacturers with headquarters in New Zealand. In other words, the British goods are imported duty free, whereas the American article is subjected to a severe duty, and 33 per cent of the duty imposed on the American article is paid over as a bonus to the New Zealand manufacturers and importers whenever the agents of the American concern cut their prices.

This two-edged sword is expected to accomplish the undoing of the American interests and discourage their further efforts to capture New Zealand's trade. It has at least made it impossible for the Americans to do business in New Zealand for the present except at an immense loss, and the question is whether the Americans will swallow their losses and fight it out until the New Zealanders tire of the game and begin the use of the American goods because of their admitted superiority over the British article, regardless of the consideration of price.

PURCHASES BY NEW ZEALAND.

The New Zealand Trade Review publishes a list of the most important classes of goods imported at the four principal ports of the colony, namely, Auckland, Wellington, Lyttelton, and Dunedin, during the years 1905 and 1904. As a general rule the totals for the whole colony would be about 25 per cent more than the following aggregates:

Articles.	1904.	1905.	Articles.	1904.	1905.
Candles.....pounds..	2,665,160	1,836,155	Rice.....cwt..	62,941	69,823
Cement .....barrels..	124,759	128,414	Salt.....tons..	11,150	13,004
Currants.....pounds..	2,218,841	2,789,561	Tea.....pounds..	5,647,516	5,426,215
Raisins .....do....	2,548,449	2,662,143	Tobacco.....do....	1,702,305	1,742,412
Other dried fruits..do....	1,240,958	1,660,583	Cigarettes .....do....	230,712	280,522
Iron:			Apparel.....dollars..	2,609,850	2,605,429
Bar, bolt, and rod, tons	12,494	15,203	Footwear.....do....	1,159,346	1,260,112
Corrugated sheet, cwt.	256,684	246,871	Cotton goods .....do....	2,278,592	2,102,883
Fencing wire ..tons..	5,888	7,789	Drapery .....do....	2,142,306	2,082,528
Barbed wire ...do....	2,940	3,902	Woolen goods .....do....	1,851,854	1,774,606
Kerosene .....gallons..	4,414,748	4,567,271	Pianos.....number..	4,086	4,191

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TRADE-MARKS.

ORGANIZATION FOR PROTECTION.

INTERNATIONAL MOVEMENT IN FRANCE.

SOCIETY TO GUARD BRANDS AND MARKS—MEANS TO INCREASE SALE OF AMERICAN GOODS.

A report from Commercial Agent C. J. King, at Lille, calls attention to the merits of a French society for the protection of trade-marks, to which American exporters are admitted, and which Mr. King believes is a substantial avenue for the extension of trade in France. He writes:

Taking into account the actual state of competition in trade and the consequent continual overflow of spurious products upon the world's markets, it is highly conceivable that a moral institution should come into existence to check the avidity of the counterfeiter, protect the honest producer, and reassure the confidence of the buyer or consumer. Such an institution, with international tendencies, has recently sprung up in France, and, judging from the composition of its staff and its recognition by the minister of the interior, bids fair to become an organization of general public utility. Its wide scope and moral character will permit American exporters to claim a widespread protection for their brands and goods and increase their output on the French market. The American importer, buyer, or consumer may equally be able to distinguish French brands and pure products of French origin.

This institution, established upon a basis of mutuality, is known as the Société des Marques (society of brands), and counts over 50 branches, including the one recently opened at Lille. Its distinguishing characteristic is the use by members of an inimitable and specially designed stamp of control. These stamps are placed upon articles offered for sale, and attest to the legality of the brand and the quality of the product. The right to employ the stamp is accorded only after an examining commission has pronounced favorably as to the quality of the goods and the ownership of the trade-mark.

The high standing of the lawyers, medical men, chemists, and engineers that accomplish the tasks allotted to the different commissions lend a certain weight and authority to the organization, assure satisfaction to adherents, and presages the ultimate carrying out of a comprehensive programme, which may be résuméd as follows:

SCOPE AND METHODS OF DEFENSE.

The defense of the particular and general interests of members. The guarantee and the protection of lawful trade-marks by means of a controlling stamp, which it is held increases the sale of the product

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as well as the value thereof. To establish and certify to the just value of products by an examining commission composed of competent persons. To stimulate the sale, facilitate the introduction, to give preference to, and uphold the prices of the products of adherents. To detect fraud and imitation. To institute and prepare legal proceedings and otherwise seek the interest of members.

PROTECTION OF AMERICAN-MADE GOODS.

The probable advantages implied in the foregoing excerpts from the statutes of the society, inasmuch as the American exporter is concerned, merit due consideration. The moral recognition and material support of a national institution can not but aid in the introduction of and the trading in American-made goods in France. The affixing of a French stamp of control upon any foreign article must also necessarily appeal to the sympathy and gain the confidence of the domestic buyer or consumer.

Added to these considerations the placing of an authoritative French mark upon American-made tool machinery, agricultural implements, and in general novelties in the hardware line, would avoid confusion with cheaper fabrications of the same patterns, exported in large quantities from other countries into France, and usually sold on the installment plan through partial payments effected at periods from three to six months.

As a simple advertisement, if nothing else, the stamping of American canned goods and alimentary products in general would be productive of an increase in sale; and the society's attestation as to quality would serve to remove any prejudice or doubts haunting the mind of the inexperienced or newly-tempted consumer.

Furthermore, the systematic protection of a trade-mark is in itself of incontestible utility, especially in foreign countries, where, notwithstanding existing legislation, the formalities of procedure are always trying, bothersome to the unskilled, and often deter the lawful proprietor from seeking redress. The American exporter, therefore, has nothing to lose and much to gain in obtaining the right to the advantages held out by the Society of Brands.

MEMBERSHIP REQUISITES.

Any industrial or merchant of good standing is eligible to membership. Applicants are, however, required to present the usual references and the justification of their ownership of the trade-marks with which their products are branded. Upon a favorable report from the admitting commission a diploma of adhesion is granted. The annual dues are fixed at 100 francs ($19.30). The cost of stamps varies according to size, international or domestic use, and quantity, or from 1 to 3 francs (19.3 to 57.9 cents) per thousand. The stamps are for the exclusive use of members, and are affixed only upon such brands or goods as have been favorably pronounced upon by the examining commission. Any improper use is punishable by law, and entails the loss of diploma and consequent right to advantages. Existing legislation will be rigidly enforced against all persons found to be fraudulently imitating either the products or brands of members.

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EXISTING LEGISLATION.

In connection herewith it may be fitting to cite the sections of the law of June 23, 1857, relative to trade-marks and respecting the proper use thereof by foreigners doing business in France, as follows:

TITLE I.

SECTION 1. That brands or trade-marks are optional. They can, however, be exceptionally declared obligatory for products so decreed by an ordinance of public administration. Are considered as brands and trade marks: Names of a distinctive form, denominations, emblems, impressions, stamps, seal, vignette, reliefs, letters, numbers, wrappers, and all other signs serving to distinguish manufactured products or commercial objects.

SEC. 2. That no person can claim the exclusive ownership of a trade-mark unless he has deposited three copies of the model of that mark with the clerk of the tribunal of commerce of his residence.

SEC. 3. That registration is effective for a period of fifteen years; the ownership can always be extended over another period of fifteen years by means of renewed registration.

SEC. 4. That a fixed tax of 1 franc is received for the certificate and copy of same, not including charge for revenue stamp and registration.

TITLE II.—*Dispositions respecting foreigners.*

SEC. 5. That foreigners possessing in France industrial and commercial establishments enjoy for their products the benefits accorded by the present law, provided they fulfill the formalities prescribed.

SEC. 6. That foreigners and citizens of France whose establishments are situated outside of France enjoy for their products the benefit of the present law, provided the countries wherein they are situated have established diplomatic conventions granting like concessions with respect to French trade-marks. In such case the registration of foreign trade marks is made with or before the clerk of the tribunal of commerce of the Seine.

TITLE III.—*Penalties.*

SEC. 7. Are punishable by a fine of 50 to 5,000 francs and imprisonment from three to six months, or one or the other of these punishments: Those who have counterfeited a trade-mark or made use of a counterfeited trade-mark; those who have fraudulently affixed upon their products or commercial objects a trade-mark belonging to another; those who have knowingly sold or placed on sale one or several products bearing a counterfeited mark or one fraudulently opposed thereupon.

SEC. 8. Are punishable by a fine of 50 to 2,000 francs and imprisonment from one month to one year or one or the other of these penalties: Those who, without counterfeiting a trade-mark, have made a fraudulent imitation thereof, and of a nature to deceive the buyer, or made use of a mark fraudulently imitated; those who made use of a mark indicative of deceiving the buyer as to the nature of the product; those who knowingly sold or placed on sale one or several products bearing a mark fraudulently imitated or indicative of deceiving the buyer as to the nature of the product.

TABLE V.—*General dispositions.*

SEC. 19. All foreign products having either the trade-mark of a manufacturer residing in France or the indication of the name or the place of a French factory are prohibited from entry, excluded from transit, storage, and can be seized at any place whatsoever, either by the customs authorities or the request of the public minister or party injured.

SEC. 20. The dispositions of the present law are applicable to wines, liquors, and other beverages; to cattle, grains, flours, and, generally, to all agricultural products.

OBLIGATORY TRADE-MARKS.

Referring to section 1 of the preceding law relative to obligatory trade-marks, it may be well to state that decrees have made trade-marks

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obligatory for soaps other than for toilet use, also for articles of gold and silver, which must be punched with an emblem and the initial letter of the name of the maker.

GERMAN EMPIRE.

AMERICAN INVENTORS IN THE IMPERIAL PATENT OFFICE.

The difficulties that American inventors have experienced in procuring patents in Germany led a foreign patent attorney in New York City to take up the subject with the German patent office. That institution gave it serious study and discussion, and resulted in a reply by President Hauss making full explanation, and granting some amelioration. The letter in part follows:

In complaining about a too severe definition of the term invention you refer especially to the fact that the proof of a "new technical effect" is more often acquired than it appears advisable according to the circumstances. This should only be regarded as an expression to the effect that in the opinion of the examiner there is lacking in the subject-matter of the application any considerable effect. Such an estimate, whether the invention, in as far as it is new, exceeds that which also an "ordinary workman" is able to do, must be left to the examiner and the departments of the patent office. It is of less importance than the expression that is used by the patent office in refusing a patent. However, I have taken care that the phrase requesting to "prove a new technical effect" is limited to those cases in which an industrial process does not come into question except from the mechanical view point, and when the stated technical effect is so improbable that a proof must be demanded.

NO DISCRIMINATION.

President Hauss says that the patent office must be guided by the decisions of the German supreme court, which has laid down a series of principles covering inventions, and which can not be left unobserved in granting patents without great injury to the interested industrial branches. He also points out the fallacy of the statement that in Germany "every invention must contain a new principle" "by the fact that about 10,000 patents are annually granted in Germany, whereas nobody will say that fundamental new inventions are remotely made in any such number."

That American applicants are not treated worse than Germans is evident, says Mr. Hauss, for 1,069 German patents were granted to Americans in 1903, or only a decrease of 2.3 per cent from the number granted in 1901, whereas the decrease was 4.2 per cent in the number granted to German applicants for the year 1902, as compared with 1901, the figures being 6,334 and 6,609, respectively. Also that out of every 100 applications in the German Empire an average of 34 patents were granted in the years 1901 to 1903, whereas on 100 applications from the United States an average of 59 patents were granted in the same period. The year 1904 showed a still more favorable comparison for Americans.

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AUSTRIA-HUNGARY.

WHAT MUST BE DONE TO PROTECT GOODS.

Under date of April 9, Consul-General Frank D. Chester, of Budapest, reports on the injury resulting to American export interests from their failure to adequately protect their goods in Hungary. The consul-general calls the attention of machine exporters to the necessity of obtaining Hungarian patents and registering their trade-marks in Hungary, at the same time designating a Hungarian attorney to prevent infringements on the same. He cites the case of a well-known American firm engaged in manufacturing incubators, which firm will sustain a loss of about $3,600 yearly in case it fails to prove promptly in the district criminal court of the city of Budapest, under section 12 of the Hungarian patent law, that its goods were used in Hungary (or prepared to be used) before the filing of the application for a certain patent granted to a Hungarian firm for incubators of a somewhat similar form and system.

AUSTRALIA.

LAW COVERS WHOLE COMMONWEALTH.

The Australian Commonwealth trade-mark act came into force on April 27 last. The stamp duties are double those under the new English law. The trade-mark law extends to the whole Commonwealth, and any trade-mark already registered in any of the States of Australia can be extended to the whole of Australia, unless previously applied for in any other State by another party.

As (subject to extremely strong proof of superior right by another party) the first applicant will be considered the rightful owner of the trade-mark, and in other countries firms have lost valuable trade-marks through others registering their marks first, it is desirable that all firms wishing to have their trade-marks registered in Australia should apply promptly.

LABELS ON BOTTLES.

Empty bottles and packages with the labels of well-known British and other firms are being refilled by spurious compounds, writes the Sydney correspondent of the London Commercial Intelligence. In Sydney two firms have been fined for selling as a British brand of vinegar a mixture of water and 3.6 per cent solution of acetic acid, colored to represent vinegar. There appear to be several places in Sydney and its suburbs where these and other fraudulent compounds are fabricated.

CUBA.

AMERICAN DIFFICULTIES.

The Merchants' Association, of New York, announces that it has recently received a number of complaints from its members concerning the confiscation, by citizens of Cuba, of trade-marks which have been established by American citizens by years of use, and have been made valuable by expensive advertising. Hence the association is seeking to secure the same degree of protection of American trade-marks in Cuba as the laws of the United States give to Cuban trade-marks. In America foreign owners have the same right to registration of trade-

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marks as citizens, while in Cuba a citizen may register any well-established and valuable American trade-mark not already registered in the island, and thus become the owner of same. Then if the American goods bearing this trade-mark continue coming into Cuban custom-houses they are liable to confiscation, and the Cuban who has registered the trade-mark has both a criminal and a civil action against the American owner for infringement. The Merchants' Association, in seeking to remedy this trouble, desire to hear from all manufacturers who have had difficulties of this nature.

UNITED STATES AMENDMENTS.

NOTABLE CHANGES IN REGISTRATION.

Some notable changes will affect trade-mark registrations in the United States after July 1. The new law provides that classifications shall be established as in foreign countries, England having 50, Germany 42, and France 74, the second section reading:

> That the Commissioner of Patents shall establish classes of merchandise for the purpose of trade-mark registration and shall determine the particular description of the goods comprised in each class. On a single application for registration of a trade-mark the trade-mark may be registered at the option of the applicant for any or all goods upon which the mark has actually been used comprised in a single class of merchandise, provided the particular description of the goods be stated.

The third section of the bill changes existing laws to give a citizen of a foreign country who has a manufacturing establishment within the territory of the United States the same rights and privileges "so far as the registration and protection of trade-marks used on the products of such establishments are concerned," as are enjoyed by our own citizens.

METRIC SYSTEM.

CANADIANS DO NOT WANT TO LEAD IN ITS ADOPTION.

Consul R. S. Chilton, jr., writes from Toronto that a prominent Canadian manufacturer calls his attention to the fact that the lectures given throughout Canada by Professor McLennan, under the auspices of the Canadian government on the subject of the metric system of weights and measures, are for educational purposes only, and are not to be taken as indicating an intention to adopt that policy in the near future. The manufacturer states further:

The Canadian Manufacturers' Association have requested the Canadian government to withdraw the McLennan lectures, and ask the government to take no action on weights and measures until such is done by Great Britain and the United States. They have also recommended that the chambers of commerce of the Empire, at their meeting in London this year, ask for a royal commission to investigate weights and measures, and to report a system which will be acceptable. The Canadian Manufacturers' Association represents nearly 2,500 of the leading manufacturers of this country between Halifax and Victoria, and for this reason I only thought it fair that the United States consulate should state that those most directly affected by a change to the metric are opposed to any immediate action.

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DAIRY.

CREAM AND MILK.

FOSTERING CARE IN THE DOMINION.

GOVERNMENTAL AID AND ENCOURAGEMENT—RAPID DEVELOPMENT OF THE INDUSTRY.

A previous report from Commercial Agent A. J. Fleming, of Stanbridge, on the Canadian creameries attracted considerable attention, and in compliance with many requests for further information Mr. Fleming was instructed by the Department of State to furnish further details, particularly explaining the extent and character of aid given the creamery industry by the Dominion government. The following report is based largely upon information furnished by Hon. S. A. Fisher, minister of agriculture:

The Dominion department of agriculture undertook the management of creameries in Alberta in the year 1897. Previous to that year creameries had been established in Calgary, Edmonton, Innisfail, and Red Deer, but owing to some cause not disclosed these creameries had not operated successfully. The management was assumed by the government in the first place because it was considered necessary to "nurse" the creameries for the first few years of their existence, in order to tide them over that difficult period of small output and consequent excessive cost of manufacture on account of sparse settlement and difficulty of carrying on the work in a newly settled territory. The government operation at once established, says the minister, confidence in the business and insured the support and cooperation of the farmers in those districts.

LOANS FROM THE GOVERNMENT.

A number of these already established creameries received financial help from the government in the shape of loans, or advances for the payment of the best and most improved machinery and equipment. This money was repaid to the department by an assessment of 1 per cent per pound on the butter manufactured from year to year. The management of these creameries by the department was continued much longer than it was intended when the work was begun in 1896–97. The minister was induced to continue the work from year to year, because it was contended that the withdrawal of governmental interest would mean the ruin of many promising organizations by destroying the confidence which resulted in the communities by reason of governmental control and supervision. It was also true that many of the

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new settlers had had no previous experience in that industry. The conditions were new and untried. New problems had to be solved, and there were no records or precedents of years of successful operations under the prevailing conditions, as there was (and is) in the older dairying districts. It can be asserted to-day, continues the minister, that no section of Canada has a better organized, better equipped and more promising industry than has the creamery industry in the northwest at this moment, and which has been molded out of what were in 1897 and 1898 a few practically defunct and bankrupt businesses. Debts has been paid off, new buildings erected, new and first-class equipment installed, confidence established, enthusiasm enkindled in the patron and worker, and large numbers of farms belonging to the patrons have been improved and stocked with cattle, while the returns from the creameries, at least as far north as Alberta, are making the foundations of the country's present prosperity.

GOVERNMENTAL CONTROL.

In the operation of these creameries the government assumed full control, engaging the butter makers, providing all the necessary supplies, giving considerable personal attention to the workings, and assuming all responsibility for the quality of the butter and for the marketing of the same, keeping the factory books, and making the dividends to the patrons from time to time. The usual charge was made for manufacture, which in that part of Canada is 4 cents per pound, the patron delivering the milk to the creamery at his own cost and expense. Provincial government having been granted to Alberta and Saskatchewan, the Dominion government could not consistently continue the creamery industries, and at a meeting held in Edmonton February 20, 1906, the control and management of those in Alberta were transferred to the provincial government. Since that date the province of Saskatchewan has assumed the management and control of the government creameries in that province, and practically all the money loaned by the Dominion government has been repaid to the government, and the creameries are well equipped, valuable, and doing a very successful business, and have been a great factor in filling up, supporting, and making that new country prosperous and the farmer comfortable. The minister says the department has no regrets at the work done and that no better work has ever been done than this.

ASSISTANCE FOR THE NORTHWEST.

In the autumn of 1896 the Dominion government appropriated by legal enactment $15,000 to be expended by the minister of agriculture in assisting creameries in the Northwest Territories, this fund to be advanced as loans for the establishment of creameries. Some of the conditions were: Joint stock companies might organize and be assisted by the government; the company to be duly incorporated; the company or association to provide suitable buildings, premises, and plenty of good water; buildings to be equipped and erected according to plans furnished by the department; milk from not less than 400 cows to be guaranteed; location and site of creamery to be approved by the department; the government to take the management of the creameries where loans are made for equipment, and shall manufacture the

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butter for the patrons at a charge of 4 cents per pound; the government to pay advances to the patrons after the end of every month of such sums as the department may estimate to be two-thirds of the net value of the milk and cream supplied by them; the government shall charge 1 cent per pound on butter in addition to the 4 cents for manufacture and sale as a reserve or fund for the repayment of the loan or advance, and an additional 2 cents per pound for any debts that may have been upon the plant at the time the government took charge of same; that the government shall control and manage the enterprise for at least three years, unless the amount of the loan and advance is paid before that date; the government to pay annually for rents and use of premises a sum not exceeding 7 per cent of their value; when the loan or advance has been repaid the creamery may become the property of a joint stock company and pass from the direct control of the government. These are the main features and conditions of the government's management of the Northwest creameries, which has been wonderfully successful and most beneficial to both country and individual.

CHEESE.

ITALIAN IMPORTS AND EXPORTS—PRODUCTION AND PRICES.

Consul Dunning, of Milan, states that the cheese industry of Lombardy is evidently contributing its full share toward the increase in trade between Italy and the United States. He writes:

The shipments invoiced in the Milan consulate for the six months ending with December 31, 1905, amounted to two-thirds of the total shipments sent through this post to America for the entire fiscal year of 1904–5. Significant items of interest are that the Lombard cheeses rank relatively high in market price, and that the Gorgonzola shipments are made in direct competition with the American Gorgonzola now being turned out in the northern United States. The shipments of Lombard cheeses to the United States, amounting in 1903 to $1,285,000, form a considerable part of the total cheese exports of Italy to all countries of the world. Out of a total of 137,436 quintals of cheese (quintal 220 pounds) exported by Italy during 1904, 36,547 quintals were sold to America. Shipments were made to Central and South America amounting to 19,901 quintals; to Great Britain, 22,306 quintals; to France, 13,151 quintals; to Switzerland, 17,595 quintals; to Austria, 14,240 quintals, and to Germany and Africa each somewhat over 4,000 quintals.

EXTENT OF IMPORTS.

Italy imported in 1904 (calendar year) cheese to the value of $1,290,000 and at a weight of 9,570,000 pounds. Much of this was Camembert from France and Switzerland, no true Camembert having yet been attempted successfully here. Some of the imports came from England, to meet the demand of travelers for a cheddar cheese. Switzerland makes the heaviest cheese shipments into Italy—more than half the total imports coming from there. Turkey has for some years been exporting into Italy large quantities. For the year 1904 imports were as follows: Switzerland, 25,000 quintals (220 pounds each); Tur-

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key, 12,000 quintals; Holland, 2,200; France, 2,000; Germany, 300; Greece, 900; other countries, including United States, 600 quintals. These totals have been running about level for half a dozen years. The season of 1903 was abnormally heavy in both imports and exports of cheese.

CENTERS OF MANUFACTURE.

The Lombard cheese centers are Lecco in the north and Parma, Mantova, Reggio, Lodi, and Pavia at the south, all within the consular district of Milan. Lecco makes a specialty of Gorgonzola; Parma, Mantova, and Reggio make Parmesan of the true quality, and Reggiano, which is practically fancy Parmesan, and Lodi and Pavia turn out a hard cheese of their own named Lodigiano, but is Parmesan in quality. Lecco is now making a small quantity of imitation Camembert, put up in paper instead of in the usual box. It sells at rather a high cost and has not met with favor, though it will not be surprising to see the Italians following the example of the French, Swiss, and Americans in appropriating this historic and unprotected name for some soft cheese intended to counterfeit the almost forgotten original.

Caccio Cavallo, a true south Italian cheese, is being made in a small quantity in the vicinity of Milan and figures briefly in the last year's shipments. It is very hard and sells a little below the average.

BUTTER.

EFFORTS IN ENGLAND TO STOP ADULTERATION.

Consul Hamm, at Hull, writes that a vigorous effort is being made in England to check the adulteration of butter in that country. A Parliamentary committee is investigating the subject and considering methods to stop the practice. Some offenders have been prosecuted and fined, but the adulteration still goes on.

One of the witnesses examined by the House of Commons select committee on the butter trade was the buyer and manager of the butter departments of the Cooperative Wholesale Society, Manchester, England. From the evidence given it appears that the society is very strongly in favor of legislation to prohibit the sale of impure and adulterated butter, and recommended that all butter-blending houses be licensed and separated from creameries or receiving houses. Only a small part of the butter consumed in England is made in that country. The supply comes from the United States, Canada, Denmark, Holland, Norway, Sweden, Belgium, Australia, New Zealand, and Siberia. Denmark is the chief source of supply. That country has become famous for its butter, large quantities being manufactured and exported to other countries. In 1904 Denmark sent to England over 85,000 tons of butter, valued at $45,000,000. The Government, recognizing the importance of the trade, has placed the butter manufacturers under rigorous restrictions to prevent adulteration. This has given Danish butter the highest standing in the markets all over eastern Europe. Australia and New Zealand are also sending large quantities to England. The New Zealand butter is said to be dry and saltless, and for this reason it is peculiarly adapted to the methods of those who make it a business of adulterating butter.

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Most, if not all, of this adulteration is carried on in England itself. Cheap foreign butter is purchased and blended with milk or fat and then sold sometimes as fresh butter and sometimes as blended butter, but never as adulterated butter. Only a comparatively small quantity of butter is imported at Hull from America. To all England 11,391,372 pounds of butter valued at $1,966,351 was sent from the United States in the calendar year 1905; and yet the best American butter is superior to the best butter sold here. The best butter retails in Hull at from 24 to 30 cents a pound, according to the season. The same grade of butter would bring about the same price in America. The best butter retails in America at about 5 cents more a pound. The amount imported could be easily increased, but it would need to be butter of the first class, with great care taken in its preparation and packing, and in the method of placing it on the market.

Denmark, from its nearness, has of course superior advantages in placing its butter in the English market, but with the cheapness of ocean freights American farmers ought to find a market for some of the highest grades of butter.

AUSTRALIAN SHIPMENTS.

Consul-General John P. Bray, in a report from Melbourne, shows the growth of the Australian butter trade with Great Britain, and gives the new regulations in London for handling butter imports.

Australia shipped to British ports from the beginning of July 1, 1905, up to February 28, 1906, butter to the extent of 21,226¼ tons. There was shipped for the same period of the two previous seasons 20,085½ tons and 15,419 tons.

The Produce Exchange of London has formulated more favorable rules for shipments of butter there. One of the old rules prescribed that overweight on uniform packages could not be charged for. Now all packages proving 1 per cent overweight will be allowed proper credit. Packages showing loss will be treated in the same way. Another new rule favorable to Australian butter is that "standing beam," which has always been reckoned as short weight, for which a one-half pound allowance has been made to the purchaser, will now be only reckoned alternately when "standing beam" occurs more than once in weighing the same parcel. A new arbitration system is also provided for. Buyers are to be given more protection in c. i. f. and f. o. b. contracts, owing to loss of weight in storage, where it is often held by shippers for higher prices.

RED BACTERIA.

Deputy Consul-General S. W. Hanauer reports from Frankfort that the formation of the so-called red butter, and also of red milk, has always been a strange phenomenon in the dairy production.

Butter covered in spots with such carmine or scarlet-colored excrescences is unwholesome for human consumption. It is therefore useful and interesting to learn the cause, and thereby possibly find a remedy, of this remarkable phenomenon. A German scientist, Dr. H. Stadlinger, chemical expert and inspector at the Royal Bavarian Food Inspecting Laboratory at the University of Erlangen, after lengthy

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researches has discovered that this red butter excrescence is caused by very active bacteria, which produce the red pigment. The discoverer has named this enemy of dairy production "Bacterium butyri rubri."

The extensive investigations and findings of the discoverer on this subject have been published in the Wirtschaftliche Zentralblatt (third volume, of 1906), which is issued in Leipzig. In his published essay Doctor Stadlinger makes honorable mention of the meritorious investigations of Miss Mary Hefferan, of the University of Chicago, which that lady scientist made in bacteria producing red pigment.

Doctor Stadlinger's investigations developed the fact that the infection of this "red butter bacteria" is chiefly caused by the prolific bacteria vegetation which exists in the water wells of the German dairy farms, which bacteria comes in contact with the dairying implements. In the doctor's opinion the best method to fight this enemy of dairy production is painstaking cleanliness in all dairying processes and by pasteurizing of the cream used for making butter.

MEXICO'S TRADE.

PURCHASES FROM UNITED STATES—DUTIES AND FREIGHT.

Vice-Consul-General Charles C. Eberhardt responds to a New York request for information as to the marketing of eggs, butter, and cheese in Mexico. Mr. Eberhardt writes from Mexico City:

During the fiscal year 1902–3 the United States sent to Mexico fresh eggs to the value of $62,163, butter to the value of $96,641, and cheese to the value of $51,963, gold. [The butter and cheese shipments in the calendar year 1905, according to American statistics, amounted to $133,257 and $40,329, respectively.] There is no duty on fresh eggs; the duty on butter is 25 cents a legal kilogram and on cheese 15 cents, Mexican currency. By legal weight is meant the weight of the material and its immediate wrappings. It does not include the weight of the crates or packing cases. So far as I can learn there are no American eggs shipped to points as far south as Mexico City, unless such shipping is done by water. The principal point of consumption is naturally in the northern part of the Republic.

American cheese is used, probably, pretty well all over the Republic. The greater part of it, I am told, comes from New York and Chicago. Owing to the great demand for cream and milk here, American butter finds a good market, Kansas apparently being the principal source of supply. Arkansas also finds a market in the Republic for some of her butter. One of the leading American grocers in this city informs me that the American butter is shipped mostly in one-pound cartons and in pound and half-pound tins, the latter being used principally in the lowlands. The pound carton retails at the present for 95 cents Mexican currency, the pound tin for $1.40, and the half-pound tin for 75 cents.

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SUGAR.

BEET, CANE, AND MAPLE.

CANADA ENCOURAGES CULTIVATION.

HIGHLY PROFITABLE YIELD OF BEETS—MORE MILLS NEEDED.

Consul George Nicolas Ifft sends from Chatham a report on the subject of Ontario sugar-beet acreage. He says:

With the farmers of Ontario anxious to raise sugar beets, it is nevertheless now certain that there will be fewer acres planted this year than there were last year when the total was approximately 15,000 acres. This is because many of the men who would like to grow sugar beets are unable to find a market for them, either at home or in the United States. The farmers throughout this section of the province who raised beets last year, almost without exception, found the crop a very profitable one, the yield running from 10 to 20 tons per acre, often netting the farmer from $50 to $60 per acre clear profit. The beet-sugar factories at Wallaceburg and Berlin, the only sugar factories in the province which operated last season, are both contracting for slightly increased acreage this year, but as they had all they could handle last year will not be able to furnish a market for more than two-thirds of the acreage that could easily be contracted for this season.

The Marine City, Mich., sugar factory, which last year was a heavy purchaser of Ontario beets, has fallen into financial difficulties and will not operate this season. It made quite a number of contracts for beet acreage in the Chatham district last fall and many of the farmers, with whom these contracts were made, have been unable to find another market, and will plant tobacco instead of beets. The Wiarton sugar factory, which was idle last year, it is definitely announced, will stand idle again this year, the litigation in which it is involved having been settled too late to permit of contracts for a crop for this season being made. The Keystone Company at Whitby, on Lake Ontario, has contracts for some 2,000 acres of sugar beets, but will probably have to find an export market, and it is claimed that the duty of $1 a ton on beets going into the United States is practically prohibitive. Negotiations for the establishment of beet-sugar factories at Chatham and Dresden are well under way and promise to be successful, but it is now too late for them to secure crops for a run this season.

FAIRLY GOOD SEASON FOR MAPLE.

Commercial Agent A. J. Fleming sends from Stanbridge, Province of Quebec, a report on the subject of maple sugar and sirup in Canada, in which he says:

A report just issued by Hon. Sydney Fisher, minister of agriculture of the Dominion government, gives the following facts regarding maple sugar:

The sugar-making season is now over, and while this Province (Quebec) was not quite up to that of previous years, the season was a fairly

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good one, and in the other three sugar-making Provinces was about up to the usual. Sugar and sirup are made in four Provinces—Ontario, Quebec, New Brunswick, and Nova Scotia—and enormous quantities are turned out. In 1901 the product amounted to 17,804,825 pounds, the money value of which was $1,780,482. Canada supplies over three-sevenths of the output of the maple sugar and sirup of the world, and is capable of furnishing six times the quantity of sugar and sirup she does if the owners of the maples would push the work as they could. Nova Scotia, New Brunswick, Quebec, and eastern Ontario mark the northern and western boundary or limits of the sugar maple. It extends south into Vermont, New Hampshire, Pennsylvania, New York, and Ohio in considerable quantities, and a great deal of maple products are put out there. The sugar maple does not grow in Europe except in aboretums. The output of 1906 will almost equal that of 1901, the best authorities say, but the season having just closed no official figures are yet issued.

CUBA.

PRODUCTION, EXPORTATION, CONSUMPTION, AND QUANTITY ON HAND.

Consul-General Frank Steinhart, of Habana, furnishes the following statement of Cuba's sugar crop of 1905–6, showing production, exportation, and quantity on hand March 31, 1906, compared with March 31, 1905:

[Sacks=320 pounds. Tons=2,240 pounds.]

	1905.		1906.	
	Sacks.	Tons.	Sacks.	Tons.
EXPORTED.				
Habana	375,883	.....	325,326	.....
Matanzas	518,761	.....	383,580	.....
Cardenas	560,283	.....	454,091	.....
Cienfuegos	647,828	.....	505,202	.....
Sagua	278,981	.....	166,403	.....
Calbarien	207,529	.....	203,878	.....
Guantanamo	192,151	.....	106,419	.....
Cuba	48,195	.....	47,123	.....
Manzanillo	208,420	.....	144,209	.....
Santa Cruz del Sur	48,720	.....	42,095	.....
Nuevitas	53,290	.....	89,500	.....
Gibara and Puerto Padre	133,394	.....	140,257	.....
Trinidad	42,500	.....	35,756	.....
Total	3,315,435	473,634	2,643,839	377,691
ON HAND.				
Habana	504,210	.....	373,047	.....
Matanzas	548,843	.....	399,676	.....
Cardenas	489,194	.....	248,580	.....
Cienfuegos	228,622	.....	369,124	.....
Sagua	95,935	.....	134,458	.....
Calbarien	186,240	.....	170,470	.....
Guantanamo	61,843	.....	49,063	.....
Cuba	19,986	.....	16,980	.....
Manzanillo	19,850	.....	30,120	.....
Santa Cruz del Sur	6,790	.....	9,735	.....
Nuevitas	19,050	.....	7,500	.....
Gibara and Puerto Padre	26,300	.....	30,960	.....
Zaza	15,000	.....	9,900	.....
Trinidad	13,376	.....	7,600	.....
Total	2,235,239	319,320	1,857,213	265,316
Local consumption	.....	11,930	.....	12,075
Total	.....	804,884	.....	655,082
On hand January 1, 1906	.....	.....	.....	19,450
Received to March 31	.....	804,884	.....	635,632

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SWITZERLAND.

EXPERIMENTAL MAPLE TREE FARM ESTABLISHED.

Consul George Gifford sends from Basel the following report concerning sugar maple trees in Switzerland:

A few years ago the Department of State caused an investigation to be made touching the production of sugar of milk in Switzerland with a view to the introduction of that industry in the United States. The information required was rather hard to obtain on account of the care with which Swiss dairymen guard the secret of extracting sugar from the whey, which is a by-product of their cheese factories. But American competition has done them as little harm as by the partial transfer to our country of the immensely more important condensed-milk industry.

A patriotic Swiss, living in America, now proposes slightly to indemnify his native country for the various forms of wealth that have been from time to time tranferred to the United States by sending 300 sugar maple trees to form an experimental plantation in the Canton of Baselland. These young trees arrived last June in bad condition on account of delay and neglect during their shipment, and half of them have died. What are left seem to be doing well, and in the course of fifteen or twenty years are expected to furnish a trifling relief from the burden of the bill for sugar, which, like that for coal, iron, and cereals, weighs heavily on the finances of the cleverest and most successful industrial people of Europe.

SPAIN.

GROWERS INTRODUCING MODERN IMPLEMENTS.

Consul-General Benjamin H. Ridgely writes from Barcelona that sugar-beet root is grown in Spain mainly in Granada, Aragon, Asturias, and some parts of Castilla. He gives the methods of cultivation as follows:

The land is generally well prepared in Granada and Aragon, not so well in Asturias, and rather badly in Castilla. The method of working the soil can be reduced to the following operations: The land is tilled to a depth varying from 8 to 35 centimeters. This should be as soon as possible and, as a rule, before winter or during its first half. In the spring it is harrowed and manure is distributed over the soil and covered. In sowing, the seeds are deposited in lines 40 centimeters apart. As soon as the plant has four leaves the picking out is done, leaving the best plants 25 centimeters apart, with 10 plants per square meter. When the soil begins to get dry the fields are ridged and watered. The land is kept clear of weeds. The roots are pulled from five or six months after date of sowing. In some parts of Aragon small nursery gardens are made, and the roots transplanted into the fields in the month of June.

The implements most commonly used for all operations are the spade, shovel, and the old Roman or Saxon plow. Some districts have

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begun to apply modern implements, mainly plows, cultivators, harrows, rollers, sowing drills, and distributors, which are used on the larger farms. The number of these being limited as yet, the implement most in use is the modern plow of the double Brabant type in the lighter sizes.

ENGLAND.

EXPERIMENTS IN BEET RAISING.

Consul Frank W. Mahin, reports from Nottingham concerning experiments in raising sugar beets in England and a project for erecting a sugar factory in Lincolnshire. This project now only awaits the successful growing of beets in that county, which is to be essayed on a large scale this year.

Farmers are not, on the whole, doing well in Lincolnshire with the ordinary crops, and it is therefore not hard to direct them into a new channel. That is being now effected by giving them free beet seed and holding out the great inducement of a constant and profitable market for all the beets they can raise. Ten farmers in the neighborhood of the proposed factory site have agreed to devote a part of their land to the sugar beet, and at last accounts were planting the seed. In addition to this, an agricultural institute will simultaneously conduct experiments on three separate tracts of land, to discover what soils are the best for growing the sugar beet and also what soils will not produce it at all.

Experiments in growing the sugar beet, claimed to be highly satisfactory, have been made for several years in this Kingdom, but this is the first case where success is to be definitely crowned with a sugar factory. The present experiment will therefore be watched with unusual interest, not alone by Great Britain, but also by several continental countries. Its success may mean the beginning of the English beet-sugar industry next year.

JAPAN.

DEPRESSION OF MARKETS.

Consul-General Miller, of Yokohama, forwards the Japanese newspaper report that, owing to the depression in the sugar market, the result of the working of the Japan Sugar Refining Company of Osaka for the last month or two has been very unsatisfactory, resulting in a loss of about $7,500. Since the company purchased the present stock of raw material, the foreign market has declined. Warmer weather is expected to revive the demand. The Osaka company decided to suspend operations for twenty days during April with a view to reducing the supply. The company has directed its attention to the extension of the markets in Manchuria and Korea with satisfactory results, and is now able to ship over 10,000 bags a month to Tientsin and Newchwang.

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MINERALS.

SUPPLY AND DEMAND.

ESTIMATE OF AVAILABLE IRON ORE.

RAPID INCREASE IN CONSUMPTION—SPECULATION AS TO FUTURE NEEDS.

Consul J. C. McNally sends a report from Liege on the international iron and steel industry and the outlook for the future, based on trade journal statements. It follows:

It is estimated that the iron ore used to date aggregates 3,300,000,000 tons, and that the consumption of raw iron has multiplied twenty-five times. In 1800 the world absorbed 2,000,000 tons, while at the end of the century the figures were 50,000,000 tons. The following table will show the rapid increase of cast iron since 1800, in millions of tons:

Country.	1800–1825.	1825–1850.	1850–1875.	1875–1904.	Total.
United States	2	9	31	245	287
England	8	40	120	230	398
France	3	10	25	56	94
Germany	2	7	23	145	177
Others	5	14	31	94	144
Total	20	80	230	770	1,100

The following table shows the great increase in the average annual output of the individual blast furnaces of each country:

Country.	1870.	1903.
	Tons.	*Tons.*
United States	6,344	95,000
Germany	6,400	41,000
England	9,120	26,100
France	4,400	24,800
Belgium	13,380	34,745

The manufacture of cast iron for the years 1904–5 is estimated as follows:

Country.	1904.	1905.
	Tons.	*Tons.*
United States	16,497,033	25,000,000
Germany	10,103,941	11,000,000
England	8,562,658	9,000,000
France	2,800,000	3,000,000
Russia	2,300,000	3,000,000
Belgium	1,300,000	1,350,000
Other countries	3,000,000	3,000,000
Total	44,563,632	55,350,000

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President Hadfield, of the Iron and Steel Institute of England, said in May last that the demands of the century in cast iron, taking as a basis the production of the last thirty years, would amount to about 54,000,000,000 tons of ore. If this hypothesis is granted, which is considered arbitrary, the stock or supply on earth would be exhausted before the twenty-first century.

NEXT AGE MAY BE ALUMINUM.

In view of the above several predictions have been made. An article in the International Quarterly says that the supply would be exhausted in a hundred years if the demand keeps up in increasing proportions, and that after that period recourse must be had to ores containing but a small part of iron, with the obvious result that iron would cease to be an article of ordinary use; that the age of iron would be superseded by the age of aluminum. According to the Iron Age the world would still have access to 10,000,000,000 tons of iron ore, of which Germany would give 2,200 million tons, Spain, 500 million; Sweden, 1,000 million; the United States, 1,100 million, and England, 1,000 million.

These predictions could, however, be nullified by the discovery of new fields and by an improved method of extraction. The question has been considered by Prof. A. E. Toernebohm, president of the geological bureau of Sweden, who, in a report to the Swedish Parliament, says in substance that it may be predicted with a certainty that the iron layers in North America, Germany, and England will be exhausted in one or two centuries, the richest layers even sooner. The principal sufferer would be England, for the coal fields of Durham and Northumberland will be exhausted in a hundred years, while the other English coal mines will have ceased to exist in from two hundred and fifty to three hundred years.

NEW METHODS AND SUPPLY.

The coal supply in the United States and Germany will hold out longer, and it is known that the ore usually follows the coal. Beyond the countries now participating in the iron industry the awakening of China, with its rich ore and coal beds, will have an extensive influence.

However, should the inventive advancement accomplish the extraction of iron from the ore without the consumption of much coal conditions would be changed. Some specialists draw attention to the fields in Russia, Algeria, China, Cuba, etc. The Amberger Volkszeitung announces that discoveries made at Auerbach show a considerable layer of iron ore. It is said to extend over a mile, and is 15 yards wide and 20 deep. This is said to be the most important deposit yet discovered in Germany.

ELECTRICITY IN SMELTING.

SUCCESSFUL TESTS MADE WITH CANADIAN ORES.

George W. Shott, commercial agent at Sault Sainte Marie, reports the successful result of the Canadian government's efforts to utilize the electro-thermic process for smelting iron ores. He says:

The Canadian government in 1904 sent a commission, headed by Doctor Haanel, superintendent of mines, to Europe to inquire into the

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different electro-thermic processes for the smelting of iron ores and the making of steel. Careful investigation of the various processes used at different points were made, and the result reported on the return of the commission was so favorable that the Canadian government decided to make further experiments and tests with Canadian ores, and selected Sault Sainte Marie as the point where they should be made. Preparations for making these tests were commenced in November, 1905, under the direction of Doctor Heroult, of La Praz, France, the inventor of the process bearing his name. The experiments were made under the supervision of Doctor Haanel and Doctor Heroult, and were concluded on the 5th of March. The result was telegraphed by Doctor Haanel to Ottawa, as follows:

Successful demonstration of all points stated in my memorandum on electric smelting of Canadian iron ores requiring investigation. Output greater than figure adopted by Harbord in report of commission. Successful substitution of charcoal, and therefore of peat for coke. Consumption of electrode insignificant. Production of nickel pig of fine quality from roasted pyrrhotite. Forty tons of pig have so far been produced. Process admits of immediate commercial application. Experiments will be completed in about two weeks.

METHOD AND RESULTS OF EXPERIMENTS.

The experiments were made with hematite, magnetite, and titanic ores takes from various places, some of which Doctor Haanel tells me could not be treated commercially by any other known process. The furnace used was about 220 horsepower and produced from 2 to 3 tons per day. Ores containing 4 per cent of sulphur contained, when treated, 0.003 per cent in the metal. About 100 tons of ore was treated, making 55 tons of iron, of mostly car-wheel quality. The pyrrhotite referred to by Doctor Haanel was roasted nickelifores ore from the nickel mines near Sudbury. No serious difficulty was encountered in the making of the experiments; everything worked smooth and easy.

Both Doctor Haanel and Doctor Heroult assert that the tests fully demonstrate that the process is a commercial success. No full detailed statement will be given to the public until report is made to the Government, but Doctor Haanel says that as soon as his report is made out it will be forwarded to the Department of Commerce and Labor at Washington. The two principal points that have been demonstrated are that the electrical process is good so far as the ore is concerned, in that it produces a superior quality of iron; that sulphuric, titanic, and other impure iron ores heretofore considered useless can be used, and that it is commercially feasible from an economical point of view.

ZINC AND LEAD.

AVERAGE PRICES AND THE PRODUCTION IN BELGIUM.

Consul McNally reports that the importation of zinc and lead bearing minerals into Belgium last year (1905), with the country of origin, was, in tons, as follows: Sardinia, 94,364; Spain, 51,537; Italy, 2,332; France, 51,870; Algeria and Tunis, 58,571; Sweden and Norway, 34,896; England, 12,080; America, 14,094; Greece, 14,285; Australia, 100,065; Chile, 50; Japan, 6,396; divers, 61,430, making a total of

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501,970 tons. Of that total 149,390 tons were consumed by the Vieille-Montagne Company, of Liege.

The average price of brut zinc in 1905 was $123.46 per English ton, which was an increase of $13.54 over that of 1904. This increase was wholly due to the favorable condition of the market. While the production of brut zinc for 1905 was greater than that of the previous year, the demands exceeded the production. England has increased her exports of galvanized sheets, which manufacture has absorbed great quantities of zinc, besides the Russian and Japanese Governments ordered a considerable excess in 1905 over that of 1904 of pure zinc for use in the manufacture of cartridge shells.

PRODUCTION AND PRICES.

The average price of lead (English) in 1905 was $65.11 for a ton of 2,240 pounds, which is an increase of $8.46 over 1904. The production of spelter in Belgium for 1905 was 143,165 tons, of which the Vieille-Montagne Company, of Liege, contributed 62,905. The production in 1904 was 137,780 tons, the Vieille-Montagne Company's share being 58,575 tons. The production of other countries in 1905, compared with 1904, was as follows: Holland, 13,550 tons against 12,895; Great Britain, 50,125 tons against 45,490; the Rhine district, 66,185 tons agains 64,360; France and Spain, 49,575 against 48,310; Silesia, 127,895 tons against 123,695; Austria and Italy, 9,210 tons against 9,100; Poland, 7,520 tons against 10,440 tons.

The production of the above countries aggregates 467,225 tons, while that of the United States was 180,360 tons for the same year, 1905. The imports of spelter into England in 1905 was 90,808 tons, against 88,669 in 1904. The total production in the above-mentioned countries of Europe in 1896 was 344,355 tons, and that of the United States 73,105 tons. The total production of the Vieille-Montagne Company, of Liege, in its works in Belgium, Germany, and France was, in 1905, 87,620 tons, against 83,580 in 1904.

COPPER.

UNITED STATES SUPPLIES HALF THE WORLD'S OUTPUT.

The price of copper recently attained the highest position since the Secretan corner in 1888. This is due to the extraordinary use of the metal for electrical purposes. Efforts to find a substitute for copper in electrical work have met with little success. Aluminium is the only similar medium thus far discovered, but its price and output threaten no competition with copper. Many railroads are arranging for the electrification of suburban divisions, which will add another element of consumption.

The world's production is now stated to be 700,000 tons. The production in 1905 was 100,000 tons greater than the average for the last five years, while the latest quotation of about $418.51 per ton compared with the average of $301.72 for the last five years. Despite these almost sensational figures there are no excessive stocks in any position. While there has been an average yearly increase in production of 748 per cent for the last five years, practically all of the important gains have been supplied by this continent, and more than half the total increase occurred in the United States.

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The output in the United States for 1905 was 397,909 tons. Spain and Portugal produced 48,000 tons and Mexico 60,000 tons; but there was an actual decrease in production by Spain and Portugal as compared with 1904, while the Mexican production has more than doubled since 1900. It is stated by experts that, taking the average increase in consumption during the last five years, 876,000 tons of copper will be necessary to meet the demand for the metal by 1910, and unless some substitute is found the requirements will reach 1,500,000 tons by 1920. The exports of copper from the United States are expected to increase enormously during the next few years.

HONDURAS MINES.

CAUTION FOR THOSE SEEKING INVESTMENTS.

Consul Felix S. S. Johnson writes from Puerto Cortes to advise Americans not to invest their money in mines in Honduras until the Government makes roads so that machinery can be easily transported to the mines. He says:

Thus far the mining ventures of American companies in this consular district have been failures, large sums of money having been invested with little or no returns. Machinery costing thousands of dollars, owing to poor roads or no roads at all, has never reached its destination and can to-day be seen on some trail or bank of stream, a mass of ruins and rust. There is no doubt but that gold is found in Honduras, but as the country has no roads it is a poor policy for persons to think of investing their money in mining enterprises in this country until proper means for the conveyance to the interior is provided by the Government. I know of only one or two mines in the interior managed and owned by American companies which are doing well. These companies have built their own roads to the Pacific coast and employ automobiles in carrying goods from and to their mines.

SILVER IN THE ORIENT.

HEAVY DEMAND CAUSES ADVANCE IN PRICE.

The heavy demand for silver in India and in the Orient generally is having, with other influences, a marked effect on its price, which rose to 67⅞ cents in London in the third week of May. There has been an advance in the price of silver of 20 cents in three years. This advance is expected to continue, and it will have a good effect on the trade in eastern markets by increasing the purchasing power of the money now used in the Orient. In the first four months of the current year Great Britain exported to India $30,000,000 worth of silver. The use of silver in the arts is rapidly increasing, it being estimated that fully 50,000,000 ounces are consumed in that way annually. The United States and Mexico combined yield more than 82 per cent of the world's output of silver, and they both derive a large advantage from its increase in price

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EUROPE.

GERMAN EMPIRE.

EXPANDING FOREIGN COMMERCE.

ANNUAL IMPORTS AND EXPORTS OVER THREE BILLION DOLLARS.

Consul Frank S. Hannah furnishes from Madgeburg statistics comparing Germany's trade with the different countries in the years 1905 and 1904.

The total amount of imports into Germany in the year 1905, according to official figures just announced in Berlin, was $1,769,830,594 against $1,631,362,670 in 1904, divided among the principal countries, as follows:

Country.	1905.	1904.
Russia	$259,605,640	$174,850,382
United States	239,082,920	224,624,162
England	186,674,586	251,757,114
Austria-Hungary	184,028,978	174,143,410
France	97,358,660	101,066,462
Argentine Republic	87,867,696	80,096,044

A comparison of the imports shows a change of places between Russia and England for the years 1904 and 1905, the United States retaining the second position and showing a substantial increase.

The exports during the year 1905, amounting to $1,390,352,446, in comparison with the exports for 1904, $1,265,115,418, are divided among the principal countries, as follows:

Country.	1905.	1904.
England	$251,757,114	$236,840,464
Austria-Hungary	141,582,868	139,075,538
United States	129,234,000	117,803,812
Switzerland	88,008,830	78,030,918
Russia	87,689,910	75,049,968
Belgium	74,370,964	66,024,532
France	69,844,432	65,284,828

Further increases are shown in the period mentioned in the exports to Africa, Asia, and Australia, while the exports to Portugal, Servia, Spain, Turkey, Egypt, Morocco (1904, $604,996; 1905, $399,602), Siam, Canada, and New Zealand show a decline.

The effect of the new commercial treaties of Germany will not be definitely demonstrated before the figures for 1907 are given out, as the figures for 1906 will contain the remarkable increase in exports and imports for January and February occasioned by the new treaties going into effect March 1, 1906.

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INDUSTRIAL POLICY.

ONE PRICE FOR COAL AND OTHER NATIONAL NECESSITIES.

Consul H. W. Harris, of Mannheim, points out how well Germany's industrial forces are coordinated and with what little clashing they work together. Along with the keen rivalry and large combinations of capital there has been also the maintenance of a broad national policy which has given encouragement to all.

If the manufacturer has had to buy his fuel of a syndicate which practically controls the entire German coal supply he knows that other manufacturers must pay the same price he does and that it is not likely to be greatly excessive. Under such a policy German endeavor has gone into widely different fields and is fairly successful in most of them.

GERMANY'S AGGREGATE SHOWING.

The German manufacturer has been a large exporter to other manufacturing nations, and is seeking out every available market. Were the balance of trade between Germany and the United States expressed only in the values of manufactured articles, Germany would have the better of America by a round 100 million dollars yearly. Her sales to the United States in 1905 were $125,000,000, mostly of manufactures, as against $15,000,000 of like merchandise (not including lard and petroleum) bought of the United States during the same year. The showing made by the German manufacturer in other foreign markets is scarcely less favorable. The exports for the year 1904, which may be taken as a normal year unaffected by the recent change of tariffs, amounted to $1,231,000,000. Of this total by far the larger bulk was from the product of the factories. German exports for 1905 show a marked increase over the preceding year in most of the leading branches of manufacture. A recent review of the world's trade by an American statistician contains the statement that from 1893 to 1904 "the value of the trade of Great Britain increased 1,115 million dollars, that of Germany 1,086 million, and that of the United States 937 million." That Germany has had a well-defined industrial policy, that a German steamship line now goes to every leading seaport, and that internal improvements and legislation have kept pace with the needs of manufacturing and trade, are items that bear directly upon this development.

Manufacturing and trade have had the aid of a flexible but withal conservative banking system, which has kept in close touch with them. This community of interest, for such it has been, has made great manufacturing and commercial enterprises possible, and it has also put into the office of the factory much of the caution and business method of the bank, and been of value in many ways. With the advent of the trader in the Far East the German banker appeared there also.

HOW TO SECURE FOREIGN TRADE.

An American of much experience at the foreign sales department of a large American agricultural machinery concern with a good trade in all parts of the world, gives it as his experience that American sales-

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men succeed best with the machinery of his concern—much better than foreign agents. It is no reflection on the foreign salesman to say that he has his own preconceived notions of how machinery should be sold, that these notions are not easily changed, and that they seem not to fit themselves readily to the American mower and harvester and to other branches of American trade.

One needs but to attend any of the large agricultural fairs in a foreign country to see how much more at home with American machinery are American agents than are the foreign agents. An American salesman yielding his bed at a crowded hotel in Germany to a writer who reported the matter to the papers, with the explanation that in certain parts of his territory he was in the habit of sleeping out doors on the platform of a harvester and would not miss his bed, gave in his explanation a partial clue to why the American agent is superior.

HINTS TO EXPORTERS.

It would seem self-evident that goods should be fairly adapted to the market where they are offered; that they should be carefully packed for transportation; that the terms of sale should correspond somewhat to those common in that market; that agents should be carefully selected and fully instructed as to the goods they are to sell; that correspondence and printed matter used, and especially that relating to weights and measures, should be in the language of the country where the goods are to be sold; that fair allowances should be made for advertising, etc. It is not too much to say that there has been no little ignoring on the part of many of our would-be exporters of these ordinary maxims of trade.

It is not altogether unusual for manufacturing concerns to write this consulate, and presumably others, that they are anxious to enter the German market with certain lines of merchandise and to state, with much emphasis, that their invariable terms of payment are 25 per cent cash with the order and balance subject to sight draft with bill of lading attached. In other words, the foreign buyer is asked to buy something he has perhaps never seen, and could not see without crossing the ocean, and pay cash for it in advance. If he is curious enough to ask for a catalogue or make some inquiry by letter, both catalogue and reply are frequently in the English language. The catalogue may contain a large number of catchy "trade" terms which are untranslatable even by means of a dictionary. Dimensions, weights, capacities, etc., are expressed in American denominations, and mean nothing to the would-be customer.

A MISTAKE ILLUSTRATED.

There is a store window in this city recently filled with American linen collars for men's wear, intended for the German trade. There is practically no foreign trade in this locality, but, peculiar to note, these collars bear only the American numbers, which are wholly different from those of the German system. These goods will have, first of all, to overcome a distinct prejudice—the same prejudice which collars or gloves or shoes or hosiery would meet in an American store if shown with German or French numbers. Confusion and mistakes will be sure to arise among the many clerks of that store, and the

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American collar will probably soon disappear from this market. There are on display in various windows throughout the city boxes and bottles of shoe blacking and leather dressing and other preparations made in the United States and in common use there. In the majority of cases these boxes and bottles as offered here contain labels printed only in English. The directions for using and preserving the preparation mean nothing to the customer—probably nothing to the clerk or the proprietor. There are American carpet sweepers, ice-cream freezers, bread pans, and other household appliances sold, or offered for sale, in stores in this district of which the same is true. And yet for the most part such household articles go into the hands of servants to whom the labels would be quite as intelligible if printed in Latin or Greek.

EXPERIENCED AGENTS NECESSARY.

A somewhat new but popular device in the United States was recently exhibited by a local agent at a small exposition in this district. The opportunity was an exceptionally good one, but was practically lost to the agent because he was unable to operate the machine with skill. The same device, and this is true as a general principle, has been widely advertised in the United States, and is familiar to nearly every one, whether he has seen it or not. But not so when such a device enters a foreign market. It may come there as an entire stranger, about which few people know anything. It follows that the agent must be the better able to explain it fully and to show its value. If it be a device for manufacturers or bankers it will be likely to be to his advantage to be able to show the favor with which prominent bankers and manufacturers in the United States have adopted the article. To demonstrate merely that it was made in a foreign country would not necessarily be to its advantage in this locality. It might even be a disadvantage.

VALUE OF ADVERTISING.

American exporters are not always judicious or liberal in the use of advertising matter. A very large American concern, which furnishes a line of food products, has recently entered this locality with its goods, most of which are new to the German table. This concern is one of the best known advertisers in the United States. It has now had its goods in several stores in this city for about four months, and so far as this consulate has observed not a line of advertising of any kind has appeared in this locality. If a hotel or family discovers these goods at all it is by mere accident, and yet in the United States, where goods of this concern are known to everybody, and have been for years, the management spend large sums each year in advertising. The result in this locality is not difficult to predict. Hundreds of families will not hear of the goods at all, their use will probably be a limited one, and the dealer will not renew his orders. The American concern will decide that there is no market for its products in this locality, and they will disappear.

MUST STUDY FOREIGN CONDITIONS.

The cases cited are taken somewhat at random and are referred to merely by way of illustration. It is not intended to convey the impression that all kinds of American goods could be sold in this

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market if only the proper methods were adopted. On the contrary, there are many lines to which for various reasons the German market is closed.. All that is contended is that those who succeed in foreign trade study foreign conditions and seek to meet them, and, above all that, up-to-date sales methods are of the first importance. It is an axiom of our domestic trade that an inefficient, underpaid selling force may wreck a business however good, so a like force may effectually bar such business from getting a foothold in a foreign field.

Not all manufacturers engaged in export trade are justified in having catalogues printed in foreign languages. For such as are not it would doubtless be an advantage to have a one or two page folder pasted into catalogues sent into foreign countries, printed in the respective languages of those countries, giving information as to prices, the address of European agents, and other pertinent facts, including the foreign equivalent of all dimensions, weights, measures, etc., used. If the American exporter to Germany finds himself handicapped by not being permitted to advertise in some of the ways he does at home, there are others that are open to him. And so while not all can place their wares in the hands of American agents, however desirable this may be, special care can be taken to see that the foreign agent fully understands what he sells. If it is a machine—that he knows how to operate it, what amount of work it is doing, where in actual use.

CEMENT INDUSTRY.

SHIPMENTS TO AMERICA DWINDLING.

The average value per year of Germany's exports of cement and the part of this trade which went to the United States, according to a German publication, during the years from 1893 to 1904, were as follows:

Period.	Total cement exports.	To the United States.
1893 to 1896	$2,570,000	$1,261,000
1897 to 1900	4,736,000	1,856,000
1901 to 1904	4,212,000	1,142,000

During the five years from 1900 to 1904, inclusive, the same totals are as follows:

Year.	Total cement exports.	To the United States.
1900	$5,826,000	$2,111,000
1901	4,220,000	904,400
1902	4,579,000	1,759,000
1903	4,084,000	1,285,000
1904	3,982,000	616,000

Or in other words the United States took of this trade for the years 1891 to 1896, 42 to 59 per cent; 1900 to 1903, 32 to 38 per cent, and in 1904, 15 per cent. Great Britain's and Belgium's exports of cement to the United States in recent years have suffered a similar decrease. Thus from 1890 to 1894 Great Britain's exports of this product to the United States averaged 194,095 tons per year, with a value of $1,762,000,

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while in the four years from 1900 to 1904 this trade averaged but 17,076 tons per year, with a value of $165,000. Belgium's exports of cement to the United States in 1902 were 116,700 tons; in 1903, 90,100 tons, and in 1904, 66,700 tons.

The following figures show the average annual importation of Portland cement into the United States from 1890 to 1904 and the actual importations for 1905:

Period.	Barrels.	Value.
1890 to 1894	2,601,000	$3,415,000
1895 to 1899	2,013,000	3,115,000
1900 to 1904	1,863,000	2,497,000
1905	955,000	1,276,000

Thus, in fifteen years the United States has reduced the total imports of cement about 66 per cent, the sales of Great Britain being reduced from an average of $1,610,000 from 1890 to 1892 to $100,000 during the years from 1903 to 1905. In other words, instead of selling to the United States about 50 per cent of its imports of cement it now sells about 5 per cent of these imports.

UNITED STATES AS A GROWING EXPORTER.

Up to 1897 the export trade in American cement amounted to practically nothing. From 1897 to 1900 the exports averaged 55,000 barrels annually, with a value of $113,000, as against imports of cement valued at nearly $3,000,000. In 1900, 76,000 barrels, worth $163,000, were exported, and in 1905, 1,067,000 barrels, worth $1,484,000, were exported. The steady growth of this export trade will appear from the following table of amounts and values for the years from 1900 to 1905:

Year.	Barrels.	Values.
1900	76,000	$163,000
1901	218,000	439,000
1902	329,000	652,000
1903	271,000	419,000
1904	362,000	530,000
1905	1,067,000	1,484,000

In 1903 the imports exceeded the exports by $3,130,000, while in 1905 the exports exceeded the imports by $210,000. Cement production in the United States is said to have averaged in the years from 1896 to 1899 12,000,000 barrels and from 1900 to 1903 23,200,000 barrels.

THE MEAT QUESTION.

SHORTAGE OF SUPPLY AN ABSORBING QUESTION.

The Badische Landes-Zeitung of Mannheim discusses the effect of the new German tariffs on the price of food stuffs, an outline of the article following:

It seeks among other things to explain away the claim of agrarian newspapers that the prices of grain and flour have not risen since the new tariffs went into effect, on the ground that these products are easily stored in warehouses and that they were largely imported in

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anticipation of the tariffs, and that the actual effect of these tariffs on the price of this class of food products will be seen later when these supplies are partly used up, and especially should the German harvest prove a light one. Reference is then made to the reduced importation of cattle and swine during March and the increased price of meat. It is pointed out that in the last three months of 1905 about 931,500 fewer swine were slaughtered in the Empire than in the corresponding months of 1904, and that while there was an increase in the number of other animals slaughtered during the same period, it by no means offset the number of swine slaughtered, nor did it make any allowance for an increase of 900,000 in population in the Empire during the year. Thus there was an increase in heavier cattle from 674,922 head in the last three months of 1904 to 682,349 in the corresponding months of 1905, or a net increase of about 11,500 head. In young cattle, calves, sheep, and goats there was an increase from 1,174,360 to 1,219,087 during the same period.

INCREASING USE OF HORSE AND DOG MEAT.

The article closes with the following suggestive paragraph: "Two sorts of animals for slaughtering purposes have, to be sure, never until now reached as large a consumption as in the fourth quarter of 1905, namely, horses and dogs. While the number of horses slaughtered in the fourth quarter of 1904 amounted to but 44,659, and in the first quarter of 1905 amounted to but 35,966, it rose in the fourth quarter of 1905 to 52,584. Most of these horses were consumed in a few north German States. At the head stands Mecklenburg * * *. In Mecklenburg-Strelitz were slaughtered 29 steers and 136 horses; in Mecklenburg-Schwerin 783 horses and only 256 steers * * *. Very high figures are reached by Anhalt, with 608 horses slaughtered as against 312 steers; and at Lubeck, with 369 horses and 114 steers—all in the fourth quarter of 1905. The number of horses slaughtered in south Germany is comparatively small, as also in Saxony, where only about half so many horses as steers were consumed. On the other hand, in the matter of slaughtering dogs Saxony took second place with 1,464 head.

"A similar condition was shown only in Anhalt with 159 dogs slaughtered for food. In the other German States this species of flesh is less valued. In Prussia only 526, in Bavaria 181, and in Baden 3 dogs were slaughtered in the last quarter of 1905, while in Hessen there were none. To be sure, here are reckoned only the common species of dogs, which under official inspection were compelled to give up their lives and allow themselves to be eaten. According to official records, there were 2,405 dogs slaughtered during the fourth quarter of 1905, as against 1,762 during the same period of 1904. Hence it will be seen that "our [German] nation's food depends more and more on the dog."

CEREALS AND MEATS PRODUCED—EXPORTS AND IMPORTS.

A British consul in Germany covers the agricultural statistics of the latter Empire in a recent publication by the foreign office at London, from which is learned:

Germany covers from one-third to two-fifths of her requirements of wheat by imports, principally from Russia, Argentina, Roumania, and

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as a rule the United States. The latter, however, owing to disappointing harvests, sent in 1904 and 1905 only 180,000 and 65,900 tons, respectively, as against 565,000 and 1,019,000 tons in 1903 and 1902. The following table shows the German imports in 1905 of cereals, flour, and potatoes, the figures being in metric tons (2,204 pounds):

Articles.	1905.		1900.	
	Imports.	Exports.	Imports.	Exports.
Rye	57,200	319,900	893,300	76,100
Wheat	2,288,600	164,700	1,293,900	295,100
Barley	1,620,600	14,500	781,500	30,300
Potatoes	354,100	148,700	177,700	180,800
Oats	966,300	102,400	462,400	106,000
Corn	928,100	200	1,384,200	.....
Wheat flour	21,400	88,200	33,700	32,000
Rye flour	1,700	112,500	1,600	93,500

PURCHASES OF MEATS AND ANIMALS.

Germany's imports of live stock and animal products during 1905 are here given, with those for 1903 for comparison:

Article.	1905.	1903.	Article.	1905.	1903.
Horses	$25,744,000	$22,484,000	Sausages	$37,000	$43,000
Cattle	27,398,500	28,664,000	Mutton	79,000	43,000
Calves	268,000		Canned meat	1,700	15,000
Swine	1,786,000	2,034,000	Meat extracts	2,240,000	1,829,000
Sheep	58,000	32,600	Milk	817,600	598,600
Beef and veal	6,020,000	3,519,000	Butter	16,531,500	10,194,000
Pork	3,844,500	2,476,500	Margerine	36,700	46,000
Bacon	1,932,000	1,058,500	Cheese	6,710,000	5,341,000
Ham	4,502,000	4,755,000	Eggs	28,185,000	26,370,000

Germany, in turn, exported in 1905, $667,000 worth of ham, $452,600 of sausages, $164,000 of meat extracts, $316,000 of beef and veal, and $29,500 of canned meat.

FURNITURE FOR BAVARIA.

EXCELLENT OPPORTUNITIES FOR AMERICAN MANUFACTURES.

Outside of office furniture, reports Consul-General William F. Wright, of Munich, the Kingdom of Bavaria is an unexplored country to the furniture manufacturers of the United States. That success would follow a properly directed exploitation of American household furniture seems reasonably certain, states Mr. Wright, who continues:

As is well known, the native woods of the southern and central part of Europe in general, and the Kingdom of Bavaria in particular, are limited in quantity, few in variety and adaptability to furniture construction, while all woods are very high in market value. Owing to this state of affairs furniture in south Germany is extremely expensive, compared to American prices, an ordinary suite of furniture costing about double the retail price charged in the United States.

THIN VENEERED FURNITURE NOT DURABLE.

There is very little solid furniture made or sold in this district, practically all being veneered, and the veneer used is of poor qual-

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ity, very thin, and not durable. The natural result of the use of this thin veneer is that after very short use it warps and cracks, and the furniture becomes valueless for ornamental purposes. Furniture dealers in this district, and especially in this city, demand and obtain profits which to the American merchant seem incredible. The system of quick sales and small profits does not appeal to the more conservative Bavarian, who prefers to obtain a large profit on one sale, which causes him less trouble than a small profit on many sales, which latter, of course, would extend his business more rapidly than the former method. A feature which must at first, at least, be reckoned with, is the system of long credits obtaining in this part of Germany. It is the custom for the tradesmen here to send their customers bills about every six months, and many firms send out bills only at the new year. This system naturally causes a larger proportion of bad debts, and therefore increases the cost of the goods sold, but that the cash trading system can be introduced is indisputable, as has been proved by department stores selling for cash in this city, and which, by all appearances, do a profitable trade.

DESIGNER'S NAME SELLS GOODS.

Munich, being the German art center, it is not surprising to find that considerable value is placed upon the design of the furniture. For example, two suites of furniture, practically similar in material, construction, etc., are placed together. The prospective customer demands the respective prices, and finds that one suite is from 20 to 40 per cent higher priced than the other. In explanation the dealer states that the more costly suite is "designed by Professor A," or "by the celebrated designer B." This applies, naturally, only to the better class of furniture, but it is inconceivable to the American that a design of furniture, being apparently so costly, should be executed with such poor materials.

There are trade combinations here, as in America, but in Germany a combination is formed, not with the idea of reducing the cost of production, but in order to keep prices above a stipulated minimum. This system abolishes all competition, as it is more in the interests of the trade to join such a combination than to suffer the disadvantages of an uphill fight against superior odds.

SUGGESTION FOR INTRODUCING AMERICAN MAKES.

In spite of freight charges and duty, I am convinced that the American manufacturer could place furniture of a superior quality on this market, and at a lower price than the article made here, and sell it at a profit. Undoubtedly the best method of introducing American furniture would be in a suitably placed showroom, where tastefully designed furniture of solid manufacture could be exhibited. The system of mailing catalogues is very undesirable, as they are mostly in the English language, of which the German dealer has usually no knowledge, and, further, it is most probable that these catalogues are placed aside and forgotten. A showroom, as suggested, in charge of a live business man speaking German and understanding his trade and the points of superiority over the German article, would, although more costly at first, bring a greater volume of trade in one year than catalogues would in ten. The existing prejudice here against

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machine-made furniture would easily be overcome when the people had the chance of examining the goods personally, with their merits pointed out by an intelligent salesman.

DEALERS IN MUNICH.

For reference I give the names of the principal furniture dealers in this city: J. G. Böhmler, Tal 12; George S. Emailhaus, Utzschneiderstrasse 7; J. Emmersberger, Aeussere Maximilianstrasse 8–10; Glogowski & Co. (office furniture), Kaufingerstrasse 15; George Hannamann, Barerstrasse 10; J. Hasenmüller, Blumenstrasse 20; Franz Hannschild, Oberanger 28; H. K. Liebermann, Landschaftstrasse 6; Gebrüder Rehbock, Dienerstrasse 20; Emil Weiss, Zweibrückenstrasse 12.

MARKETS FOR MACHINERY.

SOME OBSTACLES TO BE OVERCOME BY EXPORTERS.

Consul Dunlap, writing from Cologne in regard to the introduction of American machinery, says:

Here machinery is made to last, and if it comes reasonably up to expectations it is kept until worn out, and being originally constructed on those lines it lasts a long time. One may visit dozens of German factories and he will look in vain for any piles of half-worn, unused machinery. For the reason that the German is satisfied to use his old machinery it is very hard to introduce new until the old is disabled beyond the possibility of economical repair. A difficulty often mentioned is the inability of foreigners to get machinery made in the United States to comply with their ideas. In case a German should apply to an American manufacturer for a stationary engine and boiler he would be shown samples made from standard American patterns which might not suit him at all. Asking the price of certain alterations of form, he would be told that it could not be made, or such a price made as would be prohibitory. In Germany manufacturers are ready to make any kind of a machine wanted so long as the customer is willing to pay the price. Not long since an agent in Germany received an order for a certain pattern of shovel to the number of 20,000. He referred the matter to an American manufacturer who made that kind of goods and was told that they could not make the shovels, as it would not pay to change their machinery for so small an order, but that if he would take 100,000 they would make them. As the first-named number was all that were required the order was not given, but went to a German firm, which never raised the question of numbers but made prices at once.

THRESHING MACHINES AND ROCKING-CHAIRS.

I do not know that American threshing machines could be sold in Germany. I have never seen one in operation in all my travels, but have seen numerous threshers of German and English make. A small engine and thresher, made so that the straw might be taken direct from the carrier after being threshed and then bound, might prove an attraction, especially if a self-binder could be added.

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One would think that some one would before this have put in a factory in Germany for making American rocking-chairs. Rocking-chairs come almost entirely from Austria, and are clumsy, awkward, and uncomfortable. But this must be again taken into consideration. The German is not a rocking-chair patron; his chairs are all straight backed, stiff, and thoroughly uncomfortable. In very few houses are there rocking-chairs of any kind to be found, and before a trade could be worked up a campaign of education would have to be made. This is expensive, but the game might well be worth the trial. I can see no reason why American chairs should not command a good market here once they were introduced and were sold at prices not above the common kind in use.

SHEEP GUT IN DEMAND.

GERMANY NEEDS MORE STRINGS FOR MUSICAL INSTRUMENTS.

Consul Hurst, of Plauen, has made an investigation of the sources of supply of the materials entering into the manufacture of musical instruments in that district of Germany, which has revealed the fact that nearly 70,000 pounds of sheep gut are used annually for strings. He writes:

Nearly the whole of this quantity is imported from abroad, chiefly from Russia, which furnishes about 64,000 pounds, the balance coming from England, Australia, and India. The hope that some managers of great American abattoirs would care to examine this field for an article that may be more profitably disposed of than at home has led this office to ask Consular Agent Fiedler, of Markneukirchen, to make inquiries of the local manufacturers. He has been informed by them that English sheep gut, sold by three-score and hundredweight, is preferred to all other kinds and very high prices are paid for it, different grades selling at $5.95, $7.14, and $7.61 per kilogram (2.2046 pounds). The gut of the English sheep is of a fine white color and very durable. In Russia, where the sheep are principally slaughtered on account of their meat, only young animals are killed, whose gut is lighter and softer than that of old sheep, and which is purchased by the string makers at about $4.28 per kilogram. The Australian variety brings $3.81 per kilogram, and that from India, $3.30.

SOURCES OF SUPPLY.

In South America and Australia the sheep are bred especially on account of their wool. Young sheep are accordingly killed very seldom, and the mature gut is dark. In tropical countries much gut is spoiled, because there are too few workmen, and the cleaning should be begun as soon as the sheep are killed. Only the stronger gut is salted and exported. In Hamburg and Berlin there are importers of gut who get the salted product from all parts of the world and sell it to the wholesalers and through smaller dealers to the butchers for the manufacture of sausages. The light gut can be used only for the manufacture of strings. From year to year the use of gut for other purposes than that of violins and the like is increasing, and hence the common kinds are more in demand. For the past two years a scarcity in the supply has been felt.

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WOULD TRY AMERICAN PRODUCT.

The large string factories in this district are willing to buy American sheep gut, if our producers find it worth while to look to this market and the gut proves satisfactory. It must not be supposed that this unworked field can be entered without some negotiation and a little patience. The string makers are ready to try any varieties offered them. They will first ask for samples, say from 20 to 50 pounds, and if found available they will be glad to take the new sort up in their own interest. They say that it is impossible to make a proper trial with a specimen of 1 or 2 pounds.

Rather than write the string makers direct it would be better to address the American consular agency, Markneukirchen, Saxony, which will endeavor to arrange for a thorough trial of the American varieties, with a view to their larger and permanent use.

GROWTH OF TRUST CARTELS.

As is known, the German cartel, distinguished from trust or monopoly, comprises an association of kindred firms for the purpose of maintaining prices, and in which the firm does not lose its identity, but is controlled, nevertheless, as to output and selling price by a central committee. The cartels have been classified and separately named in the memorial, reaching the very considerable number of 385 distinct associations, embraced in 16 categories. Wholly foreign or international business combinations, whatever may be their status between cartel and monopoly, are not mentioned in the list, but German cartels that have some arrangement with a foreign organization of like business and aims are specified as closely affecting home interests, and only those unions of firms or interests are given that have an understanding as to the uniformity of prices.

The schedule states that the coal industry has 17 cartels, including 6 associations of buyers; the iron industry comprises 62 cartels; metal (other than iron), 11; the chemical industries, including salts, acids, alkalies, colors, glues, artificial manures, explosives, and soaps, have 46; textile industries, 31; leather industries, 2; caoutchouc industries, 3; wood industries, 5; paper industries, including printing paper, wall paper, and cellulose, 6; glass, with the plate, mirror, and bottle industries, 10; brick cartels numbering 138 buying associations; stone and earth industries, such as cement, lime, asphalt, chalk, and gypsum, have 27; porcelain and pottery, 4; food and beer industries have 17; electrotechnical industries, 2; in addition to 7 scattering, including a syndicate for steam turbines, a syndicate for asbestos, a wagon-building and a linseed-oil union. Few are the materials, whether raw or manufactured, that have not been gathered in by the far-reaching arm of this present-day organization.

Statistics will be gathered of prices of commodities before and during the cartels, from which valuable deductions may be made. Careful study of foreign as well as domestic business combinations, the decision of the highest national courts in cases appertaining to cartels, will assist in determining what action may be taken by the State for cartel regulation and control.

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DENATURIZED ALCOHOL.

ADMIXTURE UNDER GOVERNMENT SUPERVISION.

Consul-General Thackara, of Berlin, writing on the use of denaturized alcohol in Germany for technical purposes, says that the subject was ably and exhaustively treated by his predecessor, Consul-General Mason, in various reports on the subject. He gives the following extract from one of Consul-General Mason's reports regarding the methods in use in Germany:

For most industrial purposes alcohol is used in Germany duty free, after having been "denaturized" or rendered unfit for drinking purposes by admixture, in presence of a Government official, with a prescribed percentage or proportion of one or more of several different substances prescribed in the very elaborate statute which governs the complicated subject in Germany. There are two general classes or degrees of denaturizing, viz, the "complete" and the "incomplete," according to the purposes for which the alcohol so denaturized is to be ultimately used.

I. Complete denaturization of alcohol by the German system is accomplished by the addition to every 100 liters (26½ gallons) of spirits: (*a*) Two and one-half liters of the "standard denaturizer," made of 4 parts of wood alcohol, 1 part of pyridin (a nitrogeneous base obtained by distilling bone oil or coal tar), with the addition of 50 grams to each liter of oil of lavender or rosmary; (*b*) one and one-fourth liters of the above "standard" and 2 liters of benzol, with every 100 liters of alcohol.

Of alcohol thus completely denaturized there was used in Germany during the campaign year 1903–4, 931,406 hectoliters denaturized by process (*a*), as described above, and 52,764 hectoliters which had been denaturized by process (*b*). This made a total of 26,080,505 gallons of wholly denaturized spirits used during the year for heating, lighting, and various processes of manufacture.

VARIOUS METHODS.

II. Incomplete denaturization, i. e., sufficient to prevent alcohol from being drank, but not to disqualify it from use for various special purposes, for which the wholly denaturized spirits would be unavailable, is accomplished by several methods, as follows: The quantity and nature of each substance given being the prescribed dose for each 100 liters (26½ gallons) of spirits. (*c*) Five liters of wood alcohol or one-half liter of pyridin; (*d*) 20 liters of solution of shellac, containing 1 part gum to 2 parts alcohol of 90 per cent purity (alcohol for the manufacture of celluloid and pegamoid is denaturized); (*e*) by the addition of 1 kilogram camphor or 2 liters oil of turpentine, or one-half liter benzol to each 100 liters of spirits.

Alcohol to be used in the manufacture of ethers, aldehyde, agarcin, white lead, brom-silver gelatins, photographic papers and plates, electrode plates, collodion, salicylic acid and salts, aniline chemistry, and a great number of other purposes, is denaturized by the addition of (*f*) 10 liters sulphuric ether, or 1 liter of benzol, or one-half liter oil of turpentine, or 0.025 liter of animal oil.

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For the manufacture of varnishes and inks alcohol is denaturized by the addition of oil of turpentine or animal oil, and, for the production of soda soaps, by the addition of 1 kilogram of castor oil. Alcohol for the production of lanolin is prepared by adding 5 liters of benzine to each hectoliter of spirits.

The price of denaturized alcohol varies in the different States and provinces of the Empire in accordance with the yield and consequent market price of potatoes, grain, and other materials. At the present time alcohol of 95 per cent purity, which is the quality ordinarily used in Germany for burning, sells at wholesale from 28 to 29 pfennigs (6.67 to 6.9 cents) per liter (1.06 quarts), and at retail for 33 pfennigs (7.85 cents) per liter.

PERFUME MANUFACTURE.

SUCCESSFUL METHODS OF GERMAN PRODUCTION.

Vice-Consul Fuller writes from Hanover that the German perfume industry is now one of the most important and successful in the world, rivaling that of France or England. He describes it in the following letter:

Some of the biggest factories are in Leipzig, but Berlin, Carlsruhe, and Hamburg are important centers of the trade. There has been a vast increase in the last few years in the diversity of essential oils produced from plants, and 40 varieties of those plants are employed in the German factories, which use as well such products of foreign lands as nutmeg, cinnamon, camphor, balsams, pepper, musk, ambergris, etc. The production of the essential oil is expensive, ranging from about $227 per pound downward, according to the scarcity of the oil in the plant. With fresh flowers the distillation takes place as near the place of picking as possible, as the fresher the products the better. The stills contain about 3,300 pounds of flowers and the necessary amount of water. Great care is taken as to the amount of heat supplied and to its regularity, the process being thoroughly controlled, an excellent product resulting.

THE USE OF FATS.

In the "fat" process the flowers are carefully sorted and the chlorophyll glands broken. They are then stirred gently for some hours that they may become thoroughly saturated with the slightly warmed fat with which the flowers have been placed. The fat and flower mixture is then separated in centrifugal machines, so that the fat may be used again with fresh flowers till it is thoroughly saturated with the perfume. Then a layer of cold fat is placed on glass plates and covered with flowers; many of these are stacked together in crates and left for about thirty days, during which the flowers are changed every day. After the thirty days the fat is cut into strings and placed on wire-web frames, which are placed alternately with metal sheets covered with flowers in a press, where they are subjected to a slight current of air. In this way the utmost amount of perfume element is obtained, but the operations require careful attention, for there should be no trace of an herby scent.

The essential oils are packed in round iron containers, which are coated with zinc inside and very securely closed. For liquids only the

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best sort of alcohol is used, and never that obtained from potatoes or corn, etc. For the cheaper class of scent the dilution is often made with vinegar and water, as it is cheap and the scent lasts a long time. Artificial perfumes are made much more easily now than formerly and can be secured ready for use with a little admixture to add to their durability. Formerly this was an expensive process, necessitating the lixiviated extract from the French fat being mixed with ethereal oils, etc.

IMITATION SILK.

SUCCESSFUL PRODUCTION FROM WOOD.

Consul John E. Kehl, of Stettin, sends a brief report with samples on silk yarn and fabric produced from wood. The samples will be loaned interested parties upon application to the Bureau of Manufactures. A short report on this industry was made by Consul Kehl in June, 1903, and printed in Consular Reports for July 21 of that year. He supplements that report with the following:

The plant located at Sydowsaue, close to Stettin, has been working for the past four years on improving and perfecting the method of manufacturing imitation silk from wood. An inspection of the plant is not permitted. Information as to the measure of success they are meeting with can only be obtained from outside sources. The plant employed about 400 hands, which number will this year be increased to 700.

I inclose a number of samples as follows:

1. A skein of raw wood silk.
2. Wrapping twine manufactured by the same process.
3. Tie made from the imitation silk.
4. Insertion lace of the same material.

The tie (No. 3) retails for 75 pfennigs (18 cents), the lace at 50 pfennigs (12 cents) per meter. Price of raw silk not procurable.

MUNICIPAL OWNERSHIP.

HIGHLY DEVELOPED AND INTELLIGENT.

A deputation of German citizens recently visited Great Britain to study the question of municipal ownership. The London Times, in referring to the matter, said:

"The control of state affairs in Germany is marked by an absolutism which has no existence in England, and political rights are limited in ways which the English regard as intolerable. Nevertheless, municipal life in Germany is more highly developed and more intelligent than in England. There is no better municipal administration in the world than that of the Red House in Berlin, but the political opinions of those who preside over it are apt to find but scant favor in more exalted quarters. The fact, however, remains, and it is not by any means a new fact, that municipal ideas have acquired in Germany an extension which they have never attained in England. Municipal affairs are conducted with a degree of efficiency and economy of which Englishmen can not boast."

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FRANCE.

PURE FOOD LAW.

PROTECTION TO ESTABLISHED INDUSTRIES.

Consul J. Martin Miller makes a report from Rheims about the new law in France protecting consumers from imitation champagne, imitation burgundy, imitation Brie and every other kind of cheese, as well as all food products and many other articles of French production the reputations of which have been built up by certain localities as places of production and manufacture. The consul writes:

The law is very broad in its scope and includes in its protecting provisions practically every article of food produced in France, and might very appropriately be called a "pure food law." But the law aims to give protection to the producer and the place of production as well as to the consumer. It contemplates, for instance, that if Roquefort cheese is produced in a certain district of France, that this district has built up the world-wide fame that Roquefort cheese possesses, and has developed its manufacture to perfection with the reputation of this particular cheese to maintain, that the article and the consumer should be protected; that the section of country where Roquefort cheese originated should be protected as the place of production and the place of manufacture; that as genuine Roquefort cheese is made from ewe's milk, it is not Roquefort cheese at all if mixed with cow's milk or other materials, as is often the case. In the same way such cheese as Cantal, Port-de-Salut, Sept-Moncel, Gex, Sassenage Gruyère, Gérome, Void, Olivet, Rollot, Brie, Camembert, Coulomniers, Livarot, Neufchatel, Mont d'Or, Troyes, Gournay, Gervais, Bondon, Mignot. Pont l'Evèque. and others are to be protected.

"Pâté de foie gras" (prepared from the liver of the goose) is a select French delicacy produced and manufactured in the province of Lorraine, which originated and perfected this industry. Now it is proposed to protect the province and consumers from immitations under the same name "pâté de foie gras."

FRENCH WINES TO BE PROTECTED.

Burgundy has produced "burgundy" wine for centuries, and the ancient province of Champagne has produced champagne grapes since the fifth century or longer. The new law will not permit any materials grown outside these districts to be manufactured into wine to be called "burgundy" or "champagne." Neither can the materials from these districts be transported away and manufactured into "burgundy" or "champagne" elsewhere.

Each district is protected as a place of production and a place of manufacture as applied to localities where the production depends upon a particular soil and climate. The French lawmakers believe this is the only way to secure protection against fraud. The articles can not be produced or manufactured away from the districts which established the reputation any more than another who is not the owner of a registered trade-mark in the United States can manufacture and sell an

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article labeled with the trade-mark that carries a great reputation with it.

To illustrate in another way the idea of the new law: "Marseille soap" is a low-priced soap with a great reputation in France and other countries of Europe. The materials from which this soap is made, however, are not produced exclusively in any particular province or country and never were. The manufacturers purchase the materials in France and from other countries; therefore the law does not essay to protect Marseille soap and similar commodities. Such articles in the protection given are matters of a registered trade-mark only, and the new law does not apply.

CALIFORNIA DOES NOT RECEIVE DUE CREDIT.

It is asserted that the best grades of California wines are sold as "bordeaux," "burgundy," or "champagne," and that only the poorest qualities of California wine, for the most part, are credited to the State. According to this point of view, the California wine makers have deprived themselves of the reputation their wines should have. Had they stood on their "own bottom," instead of placing their best wines on the market under imitation names, the California wine industry would be in a more satisfactory condition than at present. The reputation the Australian wines have made in England and other markets is contrasted to that of California. In this connection it is pointed out that such laws as France has had in the past, and particularly such a law as the one mentioned above, could not be applied to Californian wines if similar laws were enacted in the United States, because Californian products did not make the reputations of the names they go to the markets with.

There have been laws in existence in France for many years protecting certain commodities, and while there have been many convictions, particularly of the makers of imitation champagne, the law has been considered inadequate. The new law carries the severest penalties in both fine and imprisonment.

MODERN ABATTOIRS.

MUNICIPAL ESTABLISHMENTS—USE OF HORSEFLESH.

The use of horseflesh in France is increasing, bringing half the price of beef and the only meat on which there is no city tax. Mr. Miller writes:

There were 1,200 horses slaughtered for food in Rheims during 1905, an increase of 208 over the number killed in 1904. This is indicative of the general increase in the use of horseflesh in France. Its manufacture into sausage is now forbidden in Rheims.

French meats are sold in the markets the same day the animals are slaughtered. There are no meat refrigerating plants, but I am told that one was built at Paris and is now used for vegetables. Last year Councilman M. Mignot, of Rheims, made a trip to Chicago to inspect the packing plants, with a view of erecting a modern municipal establishment here. The city will spend $300,000 on this, the plans being now prepared, and I understand that some of the appliances are to be purchased in the United States. The authorities inform me that

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similar plants are to be erected at Chambery, Dijon, Nantes, Nancy, and Angers.

The price here for the cheapest cuts of beef is 14 cents per pound, while the price for fillet of beef is 50 to 55 cents a pound. About 400,000 pounds of foreign pork found a market in Rheims last year. Germany sends most of the cheap pork used here, while the United States supplies the high-class pork, hams, etc.

COGNAC BRANDY.

LOCALITY AND EXTENT OF MANUFACTURE.

Consul George H. Jackson sends from La Rochelle, France, an article about Cognac brandy, in which he says in part:

There has been and still exists some confusion in the United States with regard to the meaning of the word "cognac" as applied to spirituous liquors. Cognac is a city of 20,000 people situated in southwestern France, in and about which has grown up the very important industry of producing Cognac brandy. "Cognacs" or Cognac brandies differ from all others on account of the wine from which they are made, which is only produced in the departments known as the Charente and Charente Inférieure. Brandy can be produced from any wine, but no other brandy has the same peculiarities as cognac. The question of quality may be more or less a matter of education or habit, but the characteristics do not change; cognac remains cognac, armagnac and marc can always be distinguished, while California brandy has its peculiar distinguishing features. The French definition of the word cognac is probably the just and true definition, since the use of the word as applied to a spirituous liquor originated here. In France the following distinctions are made:

1. Eau-de-vie (*de vin* always understood unless otherwise specified) brandy. (a) Eau-de-vie de fruit; peaches, cherries, etc. Each spirit of this kind has its particular name. (b) Eau-de-vie de graines is rather a description of whisky which always is called by its name.

2. The eaux-de-vie de vin (from wine). (a) Eau-de-vie, from any wine, or brandy. (b) Armagnac, made from wine vintaged in the Gers principally. (c) Cognac, from wine grown in the Charente and Charente Inférieure. (d) The marcs are prepared in a special way from any grapes. The best known is the eau-de-vie de marc of Burgundy.

3. Cognacs are of various qualities or growths. (a) Fine or grande champagne. (b) Petite champagne. (c) Borderies. (d) Fin Bois. (e) Bois ordinaires. (f) Bois communs.

QUALITY AND VALUE.

All these qualities are mixed to produce cognac, and the value, other conditions of age, etc., being equal, is in proportion to the quantities of the finer qualities. Fine champagne, which is the finest cognac, is often sold unmixed and is known on the market as "Fine," "Cognac Fine," and "Fine Champagne." In France people would no sooner confound cognac with armagnac or other brandy than they would confound champagne with sparkling wine other than champagne. The

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other sparkling wines are known as "vins mousseux." Cognac is the only spirit properly called by that name in France.

In Europe generally we have to consider both the use and the abuse of the term. From observation and inquiry I am convinced that the word is properly employed by people who have no desire to deceive the public; also that for commercial advantage the word "cognac" is often abused.

Wines from the Cognac region have been exported for distillation in other countries, so that the dealers could say that their brandy was made from pure cognac wine. These wines, however, are "fortified," and instead of 8 or 9 per cent of alcohol, they contain 20 per cent, thus losing in great part their character. The abuse of the term is the result of a demand for the real article.

DYEING CHERRIES.

SULPHUROUS ACID AND ANILINE COLORS ARE AGENTS EMPLOYED.

Consul-General Robert P. Skinner, of Marseille, was asked by a California correspondent to ascertain by what method French glacé or preserved cherries are dyed, as they command a higher price than California cherries in the American market "solely on account of color." The inquirer adds that French cherries possess "a beautiful deep-red color that is bright and clear, although they lack the flavor of the home-grown fruit. We could increase our sales manyfold if we could color our cherries artificially as they do in France." Mr. Skinner replies:

French candied cherries are first bleached with sulphurous acid and then dyed in the course of manufacture with an aniline preparation known commercially as "rose nouveau." In former times carmine powders made of cochenille were used, and are still in use in a limited way for very superior products, but the aniline color is cheaper, and I am notified by four of the leading houses exporting to the United States that they use the cheaper material. One of these four houses writes as follows:

"The fruits invoiced by us are colored with 'rose nouveau,' a dye authorized in France after analysis by the Municipal Laboratory of Paris. All our labels bear the mention 'artificially colored,' to conform to the American custom-house regulation. The boxes of 'chinois verts,' plums, and angelicas, although containing no coloring matter, bear the mention 'colored with sulphate of copper,' in order to prevent any possible difficulty with the customs."

The "rose nouveau" is a methylated and ethylated derivative of coal tar, and may be purchased of Jacques Sauce & Cie., Les Mureaux, Seine et Oise; L. Legludic & Cie., 20 Rue des Francs-Bourgeois, Paris (3); and Périgne, Lesault & Cie., 6 Rue de Thorigny, 3e, Paris. The price per kilogram (2.20 pounds) is from $4.82 to $11.58, according to the quantity taken, mark, etc.

Jacques Sauce & Cie. advise me that their "rose nouveau" is likewise utilized in the manufacture of colored biscuits, sometimes alone and sometimes mixed with dry carmine, which they also sell. Carmine may be obtained in liquid form of L. Fichot-Landrin, 15 Rue Montor-

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gueil, Paris; Périgne, Lesault & Cie. (address above), and A. Durban, 35 Rue des Francs-Bourgeois, Paris. This cochenille color is more expensive of course than the other.

CHANGING FRUIT COLOR DOES NOT IMPROVE VALUE.

Although I am not asked to moralize, but to furnish facts, I venture to suggest that the future of California preseved fruit and every other natural product may be improved in the long run, if the packers will carefully refrain from the exercise of those merely decorative arts presumed to appeal to the public taste. It may be doubted if any great portion of the consuming public is either deceived or flattered by the artificial gorgeousness of fruits which have been boiled until their natural color has departed and then dipped in aniline dye. Though the preparation may be perfectly harmless, it certainly contributes nothing to the excellence of the finished article, and the knowledge of these facts tends to hold in check the public demand.

The use of sulphur bleach upon thin-shelled almonds has actually diminished the demand for these nuts in this country, I am told, for the reason that the kernels are sooner or later affected, acquiring an acrid taste which nobody likes. As applied both to almonds and walnuts the sulphur bleaching process is, furthermore, frequently a species of mild fraud, as it enables the dealer to mix nuts of old and new crops and different countries, give them the same shade, and get the same price. It is presumed that public taste requires a nicely bleached nut although I know of no intelligent individual who really objects to the honest color of a walnut or almond shell, especially when that color is a guarantee of the quality of the kernels.

PROCESS OF COLORING.

Vice-Consul Browne sends from Lyon the following directions for coloring cherries:

The fruit is selected, washed, stemmed, and spread upon slat frames of wood underneath which at intervals basins of sulphur are placed; the cherries are subjected to the fumes of the ignited sulphur until they are of a uniform color, which is usually yellow. A quantity of the coloring matter (rose nouveau) is dissolved in a liter of cold water. Then the cherries are placed in an earthen pot with a little of the coloring liquid, dissolved sugar, and glucose, glucose being used only in sufficient quantity to prevent crystallization and souring and to keep the fruit soft. The mass, after mixing, is turned into copper kettles and boiled slowly for about ten minutes. It is then all turned back into the earthen vessel and allowed to cool for two or three days to permit the coloring matter to permeate the fruit. If the color is not as desired a very little more coloring matter is added and the above process is repeated sometimes fifteen or twenty times, or until the desired color is obtained and the glace process finished.

My informant tells me that 1½ kilos (kilo, 2.20 pounds) of this coloring matter is sufficient to treat 10,000 kilos of cherries. The fresh cherries cost about about 6 to 7 cents a kilo and after being treated by this process they are sold at 36 to 42 cents per kilo.

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CHEAPER HYDROGEN GAS.

NEW METHOD OF MANUFACTURING HYDRATE OF CALCIUM.

Consul-General Frank H. Mason, of Paris, reports on a new process for producing hydrogen, as follows:

At a recent meeting of the French Academy the eminent physicist, Mr. Moissan, presented a report from Mr. Georges F. Joubert describing a new and thus far secret process for the manufacture of hydrate of calcium, a product which, by reason of its convenient fertility for the generating of hydrogen gas for ballooning and other purposes, is likely to play an important rôle in the field of applied chemistry.

It appears that the Société d'Electrochemie, at St. Michel de Marienne, has succeeded, like the Electrotechnical Company, at Bitterfield, Germany, in producing by electrical process calcium metal on a commercial scale and at a price so moderate as to permit its use for various industrial purposes.

The invention of Mr. Joubert consists in a process by which the reaction of metallic calcium upon a metallic salt produces the new form of hydrate of calcium, or, as it is commercially known, "hydrolithe." This resembles in appearance and qualities calcium carbide, with the difference that whereas the carbide with the addition of water evolves acetylene gas, the hydrolithe upon contact with water evolves hydrogen gas. When pure, 1 kilogram of hydrolithe will generate 1,150 liters of hydrogen. When of the ordinary commercial grade of purity, 1 kilogram of hydrolithe will create 1,000 liters, or 1 cubic meter, of gas.

VALUABLE FOR INFLATING BALLOONS.

Its most ready and obvious use is thus far for inflating balloons for military and other purposes. It is safe and easy to handle, can be used for generating gas wherever water can be obtained, and for long flights can be carried as ballast instead of sand, and employed at will for refilling the balloon, which may thus be kept in flight almost indefinitely. As an illustration of the economy of weight that has been accomplished by the substitution of hydrolithe for the purposes of military balloon service, it may be stated that an ordinary field balloon contains, when inflated, about 500 cubic meters of gas, the generation of which by the means hitherto employed requires the employment of materials and apparatus which fill three wagons, each one of which weighs when loaded 3½ tons, and requires in a campaign to be drawn by six horses. All this cumbrous and costly equipment can now be replaced by a two-horse wagon carrying a ton of "hydrolithe," which, with the addition of water that can be obtained anywhere, supplies instantly and in controllable quantities whatever gas may be required.

EXPERIMENTS TO IMPROVE STEEL MAKING.

Consul-General Mason furnishes later information in regard to calcium steel, his former reports on this subject having elicited further inquiries. He writes:

Daily Consular Reports of February 13 contained my report on the ceramic product known as "calcium steel," which is made of finely

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pulverized feldspar, sand, and lime into a paste and baked in an oven. The product is an earthenware of great hardness and durability, the calcium contained in the feldspar giving it the name "calcium steel."

It now appears that efforts are being made in Germany to produce a new form of improved steel by combining it with a certain proportion of calcium metal, the same as is done with nickel and chromium in the manufacture of nickel and chrome steel. That calcium thus combined with molten iron in the process of steel manufacture might add some highly desirable qualities to the ultimate product, has long been believed by certain metallurgists, and the experiments now in progress are destined to definitely confirm or disprove this theory.

At the works of the Electrotechnical Company, in Bitterfeld, in Prussian-Saxony, means have been found for producing calcium metal from certain minerals in quantities and at a cost which permits it to be freely used for industrial purposes. With the calcium thus provided, a series of experiments are being made, as it is understood, by the Electrotechnical Company itself and by several leading steel manufacturing firms in Westphalia and Rheinland. As to the results of these studies nothing conclusive can yet be definitely ascertained. From an occasional paragraph in the German technical press it does not appear that the results thus far are entirely reassuring. In Metallurgie has appeared a statement, based on the extensive studies and tests made by an eminent specialist, to the effect that: "Through these experiments it is proven that calcium metal does not combine with iron in a molten condition, and its use for the formation of alloys with iron is therefore impracticable."

In the same publication L. Stockern writes as to the conclusion of researches which he describes: "From the foregoing facts the conclusion follows that calcium metal can scarcely be considered as applicable to the production of steel from pig iron, but on the other hand it may be very useful in refining copper and in bronze casting, and will not unlikely replace the hitherto more costly magnesium metal in the refining of nickel."

It remains to be seen whether further experiments will succeed in overcoming the apparently natural want of affinity between molten iron and calcium, which at present seems to bar the way to the production of an industrially practicable calcium steel.

REMARKABLE WIRELESS SYSTEM.

TORPEDOES FIRED UNDER WATER SEVERAL MILES DISTANT.

Consul Atwell, writing from Roubaix, France, tells of a new invention for firing torpedoes, the work of Jean Denissel, established until recently as an electric engineer at that place. He is said to have made a most remarkable invention for firing torpedoes at long distances and at a given moment. The consul writes:

Two years ago Doctor Brauly succeeded in utilizing electric waves to explode torpedoes and fougades at a distance, also to light incandescent or arc lights and to set electric and steam motors in motion. This wireless transmission of power to mechanical objects was a great step forward in the line of progress. The drawback to this invention is the mast or pole designed to collect the waves and transmit them to the receiving machine, this pole varying in height

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according to the distance separating the point of emission from the point of reception and regulating the motion desired or the intended explosion. The pole when used for the explosion of torpedoes becomes necessarily an indication of danger, and thus destroys the efficacy of an explosive by revealing its existence. The receiving machines are also complicated, difficult to transport, easily put out of order, and rather expensive.

DESCRIPTION OF THE MACHINE.

Armed with the knowledge of Doctor Brauly's discovery, and keeping in mind its disadvantages, Mr. Denissel has succeded in producing an apparatus for receiving electric waves that is highly sensitive and of great precision, a machine that works under ground and in water, at a long distance from the transmitter of electric waves, without mast or post. This machine may be manufactured for about $10, is easy to transport, and not capable of being put out of order. It is a cube and weighs about 7 pounds. Mr. Denissel's discovery rests upon the application of a connector of his own invention. This connector does away with the relay necessary to posts for the reception of wireless telegraphy and telemechanism now in use. It is described as of capital importance, as a torpedo may be exploded under a vessel or under a column of men from a distance of several miles.

POWER FOR OFFENSE AND DEFENSE.

There will be no longer any necessity for fishing up floating torpedoes, or avoiding those that have been sunk, nor will there be any occasion to cut wires connected with them. No matter where explosives that are provided with the Denssiel invention may be placed, no power can prevent their explosion at the moment decided upon by the person manipulating the machine which regulates the wave emissions. The new invention is applicable also to the direction and firing of automobile or Whitehead torpedoes. This is an important point when the following facts are considered:

First. That five out of ten torpedoes in active war miss aim either by faulty throwing or deviation. (The Denissel invention allows for throwing them in any direction, even backward. Whitehead torpedoes thus equipped could neither miss aim nor be lost.)

Second. That a torpedo will explode even if it be caught in the Bullivant nets with which large ships are provided and cause great damage. The Whitehead torpedo costs several thousand francs.

CAN TRANSMIT AND RECEIVE.

The Denissel machine can send forth as well as receive on land telegrams that are a specialty of its own, and that no other machine can intercept. It can also communicate with submarines. It can set into motion at long distance electric machines, steam motors, light lighthouses, and even set a typewriting machine in motion, so that it will print a long ways off from the post of emission whatever one desires that it shall print.

A PRACTICAL DEMONSTRATION.

As soon as the French minister of the navy was advised by Mr. Denissel of the first trial of his remarkable invention, Lieutenant Lacoste,

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of the navy, was delegated to proceed to experiment with the inventor. In order to demonstrate to Lieutenant Lacoste that his machine works at long distance and without poles, Mr. Denissel accompanied the lieutenant on a train going from Arras to Paris with one of his machines, and asked Lieutenant Lacoste to give a note to the person manipulating the waves of emission that should indicate the hour when the machine was to explode, this note to be opened only after the departure of the train. At the hour indicated in the note, the machine exploded in the train 40 kilometers from Arras by means of waves sent from Arras.

Since that time Mr. Denissel has experimented at a distance of several feet under ground and at great depth under water, and all of his experiments have been successful.

The minister of the navy has invited Mr. Denissel to furnish experimental proofs of his invention.

GOOD ROADS.

GOVERNMENT SUPERVISION IS EFFECTIVE.

Consul Brunot, of St. Etienne, writes of the excellent roads in France and the Government method of maintaining them. He says:

France had wretched roads in former times, and this notwithstanding the good example left by the Roman occupation. Indeed, highroad accidents were a favorite stock in trade of the old romancers. Now the roads are not only nearly perfect and good at all seasons, but are beautified by artistic stone bridges and frequently lined with fruit and shade trees. Spasmodic efforts were made to better the roads, mostly around Paris, under Louis XIV (1643–1715), but it was not until about 1775 that the serious work of building great roads of national extent was undertaken, and Napoleon I carried it forward vigorously as a part of his military schemes, uniting frontier points with the capital. Never has the work ceased, except during periods of war, and the more difficult sections, at first left to a more convenient season, are steadily being built, while new cut-offs and connecting links are continually being declared open for service. The roads are divided into six classes, as follows:

1. National roads, built and maintained by the Government, 21,300 miles.
2. Departmental (State) roads, built and maintained by the political divisions traversed by them, 15,700 miles.
3. Principal local roads, traversing two or more townships (communes), are maintained by them with Government aid, 124,000 miles.
4. Secondary local roads, the same as the preceding, except that they are of less importance, and are maintained by the townships under supervision by the Government, 150,000 miles.
5. Minor local roads, still less important than the foregoing and maintained by the townships under the supervision of Government engineers.
6. Rural roads, lanes of small importance entirely maintained by the townships without any intervention or supervision by the Government.

LOW GRADES AND GOOD CONSTRUCTION.

The rules for grades are—national roads, 3 per cent; departmental roads, 4 per cent; principal and secondary local roads, 5 per cent,

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which is the maximum allowed, except in extremely mountainous regions or on the most difficult sections of the less important roads, where there is too little traffic to warrant the expense of reducing the grade to within the rule. The method of construction formerly was to grade the bed level and lay a stone dressing of a depth of 17½ inches in the middle, diminishing to 14 inches at the sides, but experience proved that a better plan was to give the earth bed the same rounded form intended for the surface, and the thickness of the stone layer was reduced to 11½ inches. This is the method now generally followed, and about 8,700 miles of the most recent construction have been built on this plan, the others being macadam roads, built of material found on the spot, and some minor roads of gravel and earth.

MATERIALS AND COST.

The materials used vary with the nature of the stone found in the different localities. A standard of the quality of materials has been established to serve for comparison, and each kind of stone used is given a number, ranging from 0 to 20, which represents its particular value. Porphyries, being the best, are numbered from 10 to 20, while puddingstone, the worst, varies from 4 to 8. In the north central departments medium-quality material (8 to 13) has been used, this being better economy than transporting a superior quality from a long distance.

The steam roller is now in general use and permits of repairing the whole width of a road at one operation. The new work is always well watered in advance of rolling. Great care is given to the construction of drainage ditches and their relief by frequent traverse culverts. On grades these gutters are separated into short levels by steps of stone forming a series of miniature waterfalls, by which plan the flood water makes it descent without erosion of the ditch or causing damage to the sides of the road.

The cost to the Government for maintenance of roads, bridges included, averages per mile: National roads, $206; departmental, $180; principal local, $129; secondary local, $57, amounting to an annual expenditure of $31,615,668 for maintaining 311,000 miles, or about 65 cents per inhabitant.

IRON AND STEEL.

QUANTITIES PRODUCED LAST YEAR.

The French Journal Officiel publishes in a remodeled form the statistics relating to the production of iron and steel in France during 1905, the substance of which is contained in the following table:

Cast iron:	Tons.
Forge pig	686,000
Foundry pig	670,000
Bessemer pig	157,000
Thomas pig	1,531,000
Special pig	33,000
Total	3,077,000
Welded iron and steel, worked:	
Merchant iron and steel	635,000
Sheets	77,000
Total	712,000

Mild steel:	Tons.
Rails	283,000
Merchant steel, including tires of wheels	635,000
Sheets	274,000
Forging	37,000
Steel castings	26,000
Total of worked mild steel	1,255,000
Ingots	2,110,000
Blooms and billets	955,000

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GREAT BRITAIN.

INFINITESIMAL MEASUREMENTS.

INGENIOUS APPARATUS FOR SCIENTIFIC CALCULATIONS.

Consul Mahin writes from Nottingham that, after five years' labor, Dr. P. E. Shaw, of the University College there, has completed an apparatus making it possible to measure the one seventy-millionth part of an inch, and which will prove of great use to scientists in their researches.

The invention consists of a very fine micrometer screw and a series of six levers acting in conjunction with it which must be suspended by rubber bands from a specially made frame and inclosed in a box. The frame is placed in a vault under the university and surrounded with every safeguard against friction and vibration, "but even then," says Doctor Shaw, "it is impossible to carry out experiments to be successful while there is traffic in the streets. Every factory, too, where motive power is employed, must be closed, even if it is some distance away." Even a draft is said to be fatal to the successful measurement of such minute quantities as one seventy-millionth part of an inch. Dust must also be kept from the vault, and it is said that even the buzzing of an ordinary fly has made it necessary to suspend experiments till the insect has been disposed of.

The apparatus, it is claimed, could be made specially serviceable in measuring engineering gauges. It is broadly asserted that all scientists recognize that Doctor Shaw has succeeded in surpassing every other form of measurement on gauges in delicacy and accuracy. There are said to be many other uses for it—for instance, that it will act as a most delicate coherer for wireless telegraphy, and will promote the study of nature and possibly of the movements of the molecules of matter. Doctor Shaw is still improving his apparatus in the hope of measuring quantities still more minute. The general principle of the method is electric touch. This explanation is given: "If two surfaces, clean and polished, come in contact the current can at once be made to pass through them and excite a telephone or other sensitive recorder. Previously it has been impossible to measure the sparking gap of an electric current of less than 38 volts, but with Doctor Shaw's apparatus a sparking gap of half a volt can be measured. If physicists desire to understand and explain nature's happenings it is imperative that there should be exact measurements of very small lengths and of extremely minute particles. Seeing that nature deals in such small quantities it is useless to attempt to unravel her secrets without the finest instruments."

NEW STATISTICAL SYSTEM.

GREAT BRITAIN WILL NOW FIGURE ORIGIN OF IMPORTS.

Consul-General Wynne writes that the London Daily Mail reveals some British trade surprises by a new statistical system. The Mail says, in part:

Imports have with few exceptions been credited to the country from which they were shipped direct, and in the same way exports were

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credited to the port of discharge. But this method took no account of the fact that goods do not always come direct from the country of their origin or go direct to their ultimate destination. The case of Switzerland is instanced. Having no seaboard, her imports and exports must travel through other countries, and these were credited in the trade returns to those countries. The result was that the returns disclosed no trade with Switzerland. This inaccuracy has been remedied by the British Board of Trade substituting "countries of consignment" for "countries from which imported."

A striking illustration of the advantage of the new system of returns is given in the case of Canada. While the imports of bacon from the Dominion in 1904 were given at $9,077,000, her consignments to the United Kingdom were actually of the value of $13,234,000, the big difference being credited to the United States, from whose ports the consignments were largely shipped. The same holds with other classes of Canadian meat. The following table shows how European countries are affected by the new system:

Country.	Total exports to England.	Actual consignments.
Holland	$168,818,000	$79,642,000
Belgium	134,006,000	81,464,000
France	248,712,000	218,011,000
Germany	165,190,000	240,951,000
Switzerland		36,277,000
Italy	16,180,000	29,035,000
Austria-Hungary	8,809,000	32,808,000

Large quantities of South American and Cuban consignments came from ports in the United States, whose own consignments fell short by about $14,500,000 of the official figures of exports to Great Britain.

WATCH TRADE.

DECLINE IN PRODUCTION—INCREASED IMPORTS.

The London Daily Telegraph says, concerning the decline in the manufacture of watches in Great Britain:

Among English industries which have suffered severely from foreign competition that of watch making occupies a prominent place. The cheap trade, of which Clerkenwell used to be the flourishing headquarters, has practically gone. It has been captured outright by the enterprising foreigner, and though Clerkenwell road and its purlieus are still the great market center for everything connected with clocks and watches, scarcely a single watch factory survives there. We give some remarkable figures bearing on the influx of foreign watches:

Official returns showing the number of watches made at home and abroad in the last four decades.

Year.	Continental.	American.	English.
1862	2,500,000	50,000	164,000
1872	3,000,000	400,000	145,000
1882	3,500,000	1,250,000	227,000
1892	4,500,000	2,250,000	204,000
1902	6,000,000	2,750,000	226,000

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In 1904 more than a million and a half watches were imported into the United Kingdom from foreign countries, representing the sum of £838,000. This means an average of more than 10 shillings for each watch, and considering the flood of common watches of foreign origin that can be bought for much less than that sum, it is evident that a large proportion of those imported can not be classed as inferior goods. Switzerland led with 1,100,000 watches; Germany was the next, with 213,000; France was third, with 80,000, and America fourth, with 64,000. Besides this, almost as many clocks as watches entered our ports; Germany in this instance leading the way with a million, and the United States being second with a quarter of a million. The effect of the better American watch on the English market has been to make people disinclined to pay more than $20 or $30 for a watch for everyday use.

LONDON A GREAT CITY.

The Statistical Abstract for London, 1905, shows that 6,500,000 people in Greater London live in 928,008 houses. The population one hundred years ago was just one-fifth what it is now. Though the number of births was nearly double the number of deaths in 1904, the birth rate is steadily declining. The postal figures show that in 1905 there were 1,028 post-offices in London, and 2,435 public telephones working. The total imports at London in 1904 amounted to $849,086,000, and the total exports $462,299,000. Some idea of London's wealth is shown by the assessed income-tax value in 1904 in the administrative county, houses representing $219,264,000, trades and professions $364,045,000, profits of companies and other interests $698,511,000, salaries (corporate bodies) $115,044,000, salaries (army and navy) $103,674,000. In 1905 there were 2,993 motor cars and 1,852 motor cycles in London. Licenses to drive were granted to 8,070 people, the fees received amounting to $36,800.

POWER FROM REFUSE.

CITY WASTE DESTRUCTORS PROVIDE STEAM AND ELECTRICITY.

Consul Marshal Halstead, reporting from Birmingham, says that during a recent trip to the United States he learned that while general facts are known about modern refuse "destructors" and they are in use in some cities, he found there was not a general knowledge and realization of their value in power production. His letter particularizes:

The disposition of city refuse, other than by sewage, is now a question of live interest in England. The King's Norton District Council, the local authority for several small suburban towns adjoining Birmingham, lately had a formal "opening" for a new destructor. The contractors, following an English custom which creates interest in and enthusiasm about public work, formally presented the representative councilor with a golden key which opened one of the sliding doors which admit to the furnace, and there was much ceremony. The destructor had been worked by the contractors for a month as a test and this proved that 48 tons per day of dry refuse could be destroyed

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for 18 cents per long ton. The refuse was formerly dumped into disused clay pits or spread on available land, to the annoyance of adjacent residents.

The old system of refuse disposal was unsatisfactory from a sanitary point of view and cost $2,638 per annum. Under the new method, as the heat produced by the combustion of ashes, etc., means steam, it is calculated there will be from this source an annual income of $7,300 to $9,733. The council has turned over to an electrical syndicate their parliamentary rights to generate and sell electricity, and the syndicate contracts to pay at least $2,433 a year for the use of the steam from the destructor. The syndicate will build a plant near the destructor to generate electricity for power and light, and doubtless will soon be able to use all the steam the destructor can produce.

VANADIUM STEEL USED TO CONSTRUCT MOTOR CARS.

In a paper on vanadium steel making, contributed by Mr. J. Kent Smith to the Liverpool section of the Society of Chemical Industry at a recent meeting, the author stated:

"Messrs. Willans and Robinson were now producing special vanadium steel alloys at the rate of 800 tons per annum at their Queensferry works. The ferrovanadium used for the manufacture of these special alloys was obtained from the Llanelly works of the New Vanadium Alloys Company, in South Wales, and contained up to 30 per cent of vanadium. The chrome-vanadium steels were those which showed the most remarkable properties, and these contained from 10 to 20 per cent vanadium. The vanadium steel industry is altogether an English industry, 80 per cent of the production being now taken by the motor car and motor omnibus manufacturers of this country. In one case 150 axles of chrome-vanadium steel were ordered and are now running with satisfactory results, and the firm in question has given a repeat order for 400 axles of the same alloy. Chrome-vanadium steel has also been exported to France, although an import duty of £5 per ton has to be paid upon it.

"The effect of vanadium upon ternary and quaternary steels is to increase the resistance to both static and dynamic tests, a result which is partly due, in the opinion of Mr. Kent Smith, to the action of the metal in retarding the segregation of the cerbides during cooling. The highest test yet obtained from a chrome-vanadium steel, after special heat treatment, was a maximum breaking strain test of 103 tons per square inch; this steel showing at the same time great resistance to dynamic and torsional tests. This is a combination of properties which has never been obtained before, and is the peculiar feature of the chrome-vanadium steels. The nickel-vanadium steels were of great strength, but showed much lower resistance to dynamic and torsional tests."

DEMAND FOR ALUMINUM.

LARGE INCREASE IN PRICE—NEW USES FOR THE METAL.

Reports from Great Britain show that the consumption of aluminum has increased so rapidly that the world's supply at present falls far short of the trade demand. Many users of the metal, particularly

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those engaged in the motor-car industry, are suffering great inconvenience without any immediate prospect of substantial relief.

The world is dependent for its supply of aluminum on four sources of production. The chief of these is represented by the Pittsburg Production Company at Niagara Falls. In Great Britain there is the British Aluminum Company, whose plant is at the Falls of Foyers, and on the Continent of Europe there are the Neuhausen works in Switzerland, and works in Germany. In the United States shortage was aggravated by a strike of workmen. Americans sought to cover their requirements in this emergency by importing from Great Britain, but there was no aluminum there to be had. The British production amounts to about 2,250 tons per annum, which does not meet the needs of that country, and additional plants are being laid down in Scotland and Wales. There was a great demand on the Continent of Europe for this metal, and the result has been that aluminum ingots were quoted the 1st of April at $850 a ton, or $200 above the market price ruling last July, but the quotation is purely nominal, inasmuch as there is no material to be had in England.

ALUMINUM INSTEAD OF BRASS.

The London Times says that aluminum has come very prominently into use for castings, such as are necessary in electrical work, and an immense impetus has been given to the industry by the adoption of the metal for crank cases and gear boxes in automobiles. Aluminum is also very largely displacing copper for the manufacture of pans, such as are used in wax refining, jam boiling, etc. It is claimed that where brass can be used aluminum is, with rare exceptions, equally applicable, is equally economical, and has the great advantage of being about one-third of the weight. It will naturally be asked why the great expansion of demand for the metal has not been accompanied by a corresponding increase of production. The answer is that the producers have miscalculated the rate of progress, the present consumptive demand being very greatly in excess of that at the same period of last year. The rapid development of the motor-car industry is, no doubt, chiefly responsible. The supply of aluminum can not be increased at will, as is the case with many commodities.

In America aluminum is being adopted for electric wires. For example, the current from Niagara is being carried from the rapids to New York by aluminum cables. The metal has not, however, been applied to this use in England.

TIN-PLATE INDUSTRY.

WELSH MILLS CLOSING BECAUSE OF REDUCED EXPORTS.

Consul D. W. Williams, of Cardiff, reports that there is a marked depression in the tin-plate trade of Wales. It began to be felt when the disturbances occurred last year in the Russian oil field.

In 1904 Russia bought 30,530 tons of tinned plates and tinned sheets from the Welsh makers, but its demand fell off rapidly during the last months in 1905, and it has now practically disappeared, for the Welsh exports to Russia during the three months ending March 31, 1906,

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amounted to only 219 tons. There has been also a steady falling off in the exports to Canada and the United States, as indicated by the following table, comparing the first quarter in 1906 with the corresponding period in 1905:

Country.	1905.	1906.	Decrease.
	Tons.	*Tons.*	*Tons.*
Canada	3,793	2,626	1,167
United States	19,118	10,873	8,245

The exports to Germany, Holland, Belgium, France, Portugal, India, and Australia during the same period show slight increases, but there was a net decrease in the total exports for the quarter, as they fell to 91,771 tons, as compared with 95,659 tons for the corresponding quarter in 1905. The new German tariff led to purchases in anticipation, which swelled the Welsh exports during the past six months, but they have now ceased, which adds to the depression. Overproduction is another cause. The great improvements occasioned by the struggle to neutralize the effects of the American tariff have largely increased the capacity of the Welsh tin mills, and in depression the competition is felt more. The high price of tin is another item which, by adding to first cost, handicaps the makers. The price rose Saturday, April 7, 1906, to £174 ($846.77) a ton, the highest for many years. The prices of other materials are higher than they were last year.

The effect of the depression has been the terminating of the twenty-eight-day contracts with the men and the inaugurating of week to week or day to day contracts. Some mills have stopped, and many others will be forced to stop unless conditions change.

TRADE OF LIVERPOOL.

SECOND PORT OF THE KINGDOM—CALL FOR AMERICAN APPLES.

Consul Griffiths, in reporting on the trade conditions of Liverpool, says:

Liverpool is the world's second greatest seaport, the trade in 1904 aggregating $1,273,574,400. The tonnage paying dock and harbor dues amounted to 31,992,774 tons, and the customs receipts $31,431,923. During the year 207,051 head of cattle and 243,125 head of live sheep were imported from the United States. The abandonment of the system of tagging American cattle has been unfortunate, as the absence of the tags causes an intermingling of American and Canadian stock, to the disadvantage of the former. American cattle command higher prices than those imported from Canada, but with the tag removed it is difficult to make the distinction. When the cattle were tagged it was easy, in case of ailment, to trace the disease back to a particular shipment, but this can not now be readily done.

There is a good demand in Liverpool for American apples packed in gallon cans. The apples should be light in color, firm in texture, and free from evidences of decay before they are canned. A large business is done in canned fruits from California, but the sales could

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be largely increased if greater attention was paid to the quality of the fruit.

There is a great field in Liverpool for the sale of American articles, but the American manufacturer, if he desires to occupy and hold the trade, must, after introducing his goods, consider at all times his English customer, and not neglect nor disregard him, or ignore the English export trade when American trade conditions are prosperous.

SCOTLAND.

MARKET FOR POULTRY AND EGGS.

Consul Rufus Fleming, of Edinburgh, in an interesting report on poultry breeding in Scotland, prepared upon request of the Agricultural College of Utah, writes as follows regarding Scotland as a market for foreign poultry and eggs:

The best market prices for chickens are obtained from the beginning of February until the latter part of June. The game season opens in the middle of August, when the demand for poultry declines at once, and later almost ceases. Dead fowls are imported into Scotland from Ireland in the spring and early summer, the prices ranging from 2 shillings (48 cents) to 3 shillings 6 pence (85 cents) each. Russia does a considerable trade with Scotland in frozen fowls. Dead poultry comes in moderate quantities also from the United States, Germany, Holland, Belgium, and France, but I am informed by dealers that Scotland is not an important market for poultry.

The demand for eggs is constant and heavy, the home supply falling far short of market requirements. The annual imports of eggs at the port of Leith (for distribution throughout Scotland) amount in value to about $4,500,000. The imported eggs are principally from Russia and Denmark, but France, Germany, and Belgium furnish considerable quantities, and occasionally there are consignments from the United States to this market. Continental eggs are graded, chiefly according to weight. The average wholesale price of the lower grades through the year is about 6 shillings 4 pence ($1.54) per long hundred (10 dozen), and for the best grades 10 shillings ($2.50) per long hundred.

THE AMERICAN INSTITUTE of Mining Engineers will meet in London in July in joint session with the Iron and Steel Institute of England.

THE OFFICIAL REPORT of Great Britain shows that the imports for March were $21,400,000 in excess of those for the same month last year, while the exports exceeded those of March, 1905, by $20,200,000. For the three months ending with March, the United Kingdom increased its imports over the corresponding period of last year by $73,000,000, and the exports by $64,000,000.

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BELGIUM.

FOREIGN COMMERCE.

EXPORTS AND IMPORTS INCREASE—THE CYCLE TRADE.

Consul James C. McNally sends from Liege a report stating that the Belgian commercial statistics covering the first three months of 1906 show a substantial and unexpected increase over the same period of 1905. The imports for 1906 were $156,523,772, against $138,663,552 for 1905 covering a corresponding period, being an increase of 12.9 per cent. The exports were $113,627,978, against $98,775,084 in 1905, or an increase of 13 per cent. The customs receipts in 1906 were $2,901,015, against $2,629,125 in 1905, or an increase of 10.3 per cent. The movement in the merchant marine is equally satisfying, showing a departure from Belgian ports of a tonnage aggregating 3,129,887, against 2,606,575 in 1905, or an increase of 17.4 per cent. The entering tonnage was 3,080,545, against 2,740,106 in 1905, or an increase of 12.4 per cent.

EXPORTS OF BICYCLES.

The export trade of Belgium with reference to automobiles, motorcycles, bicycles, and the parts and fittings for all was as follows for 1905:

Bicycles, complete (742)	$13,346	Motorcycles (2,337)	$278,791
Bicycle fittings	221,752	Motorcycle parts and fittings	194,677
Motor cars, complete (508)	755,087		
Motor car parts and fittings	288,346	Total	1,751,999

AMERICAN SHOE INVASION.

The following, from La Meuse, of Liege, Belgium, is but an echo of the feeling throughout continental Europe relative to the success of American foot wear:

We are invaded by the American shoes. We are not the only ones to suffer by it in our national production, for the English and Germans suffer from the same conditions. But where does this invasion come from, and how does it happen that in a space of a few years the American shoes have been able to occupy such an important place in the European market? You must observe that in the United States there are only 150,000 workingmen against 290,000 occupied in making shoes in England, and, in spite of this superiority, the English are incapable of withstanding American competition even at home.

This singular state of things is due exclusively to the American tool, because in the United States the mechanism is being continually improved and allows their manufacturers to reduce the manual labor to a minimum, which labor is very high there. To prove this, here is a typical example. In 1885, 100 pairs of hand-made shoes in America required 2,225 hours of work, and the cost averaged about $5.50 a pair. Ten years later, in 1895, the same number of shoes, of the same

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quality, were made by machinery in 296 hours, the average cost per pair being about 75 cents. Is it necessary to add that it is precisely the decrease in the cost of making that allows American manufacturers to sell their shoes in the foreign market at a less price than can our local manufacturers, and the market to-day belongs to the one that produces cheaper.

It is understood that there are houses in New York and elsewhere that manufacture solely for export. Machinery has still another advantage. It is able to produce indefinitely, and statistics concerning the shoe industry clearly show it. In 1900 over 219,000,000 pairs of shoes were made in the United States, the value of which was $251,865,000. Four years later, in 1904, thanks to improved machinery, this production increased to 620,000,000 pairs, valued at $313,625,000. It has been established by the same statistics that the twenty-eight leading factories make alone on an average of 200,000 pairs of shoes daily. How can you fight such a production?

IMPORTS OF AMERICAN HORSES.

Between the years of 1895 and 1900 the Belgian dealers were much concerned lest the American horse would invade their markets with the same success that usually attends other exported articles from the United States. In 1896 the number imported into Belgium was 2,598; 1897, 4,183; 1898, 6,080; 1899, 3,932, and in 1900 2,256, being a total of 19,049. Before this interesting period the importation was merely nominal. After 1900, however, the fear of American competition in this line vanished, for in 1901 the imports dropped to 680, 1902 to 255, and in 1903 to 44. The apprehension of the local dealers was enlivened by reason of the quality of horses imported, which were of the draft type and compared favorably with the draft horse of Belgium.

PROGRESS IN ELECTRICITY.

LABORATORY MUSEUM BEING ESTABLISHED IN BRUSSELS.

Consul-General Roosevelt, writing from Brussels, says that in October, 1906, there will be placed at the disposition of Belgians the Laboratory-Museum of Electricity of Brussels, which the consul-general thus describes:

The establishment is built, equipped, and will be offered to the public by Robert Goldschmidt, of Brussels. The object of this philanthropic work is the development and extension of the use and application of electricity in Belgium by practical experimental instruction. The institution will contain all kinds of electrical models and appliances, which may be freely handled for study and experiment. Models and apparatus will be conveniently placed at the disposition of the public upon separate tables, and may be connected with the electric current at will.

For example, a person desiring to familiarize himself with running an electric tramway, will find a complete model, about ten inches long, of an electric car, which he may freely handle for examination, and operate upon the diminutive rails. Reduced models of every part of an electric-tramway system, various dynamos, etc., are to be found in the museum. Mr. Goldschmidt hopes to extend the knowledge of the great possibilities of electricity through these practical methods.

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ELECTRIC EQUIPMENT OF LABORATORY.

The institution is divided into four large rooms. The first is devoted to machines serving to produce phenomenon due to magnetism and to electricity by friction and chemical reaction. This room will also be devoted to the demonstration of electrical laws. A circular gallery around this room is designated as the second hall. Here are found the domain of theory and application—machines of all sorts, lamps, bells, agricultural and dairy implements, conveniently exhibited, and may be worked by simply adjusting the electric appliance supplied to each table.

There will also be free telegraph, wireless telegraph, and telephone offices. The third hall is subdivided into reading rooms where the latest scientific periodicals will be on file.

In the fourth hall will be found all kinds of large motors, dynamos, etc., with which the public is at liberty to study and experiment. There is no doubt that this institution, which has been planned and carried out with great forethought, will be of great benefit in affording free and practical instruction in the varied problems of electricity.

HIGHER PRICES FOR COAL.

The recent disaster in the coal mines at Courrieres, France, and the probability of no output from these mines for several months, is strongly felt throughout the industrial centers of Belgium. An abundant supply of soft free-burning coal has always been difficult to obtain, and in certain localities, such as Hautmont, Jeumont, Louvroil, Sous-le-Bois, and Tournai, manufacturers have largely depended upon the Courrieres mines for their supply of coal, the daily extraction at these mines averaging about 2,000 tons.

Since the Courrieres disaster, directors of mines in the Charleroi and Borinage districts, Belgium, have been besieged by orders from works in the above-named districts. In view of the scarcity of soft coal and the pressing demand for coals of all categories, prices for new contracts have been advanced and are quoted as follows: Light close burning, $2.70 per ton; light half-close burning, $3.08; briquette type I, $3.66; and briquette type II, $4.05. Added to the present restricted soft-coal supply is the discontinuance of work for six months in a pit of the Grand Hornu mine, Belgium, which produced a daily average of 200 tons, for the purpose of carrying out indispensable work to avoid flooding several other pits. In view of these two facts prices for soft coal are not quoted.

AMERICAN CATTLE WANTED.

There is a ready market in Belgium annually for 100,000 lean cattle for feeding purposes, providing permission can be had from the authorities for entering the same at Belgian ports.

At the present time Belgium depends mainly upon France and Holland for lean cattle, and finds the supply inadequate to the demand. Under present provisions only fat cattle, which must be slaughtered

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within three days after arrival, are allowed to enter at Belgian ports, the duty being only some 20 cents per 100 pounds live weight. I have recently taken the matter up with the farmers and cattle dealers and find them all inclined to procure this class of stock from the United States, if arrangements to permit it can be made by the two Governments, and at my suggestion some 200 Belgian farmers and cattle dealers have petitioned the minister of agriculture to extend the regulations permitting shipments from France and Holland to the United States, and under the same restrictions, viz, a duty of 15 cents per 100 pounds live weight.

SPAIN.

CONDITIONS FOR DISEMBARKING PETROLEUM AND LUBRICANTS.

Consul-General Benjamin H. Ridgely, of Barcelona, advises that the new Spanish tariff contains the following concerning the disembarkment of petroleum and lubricating oil:

Petroleum and mineral oils, when imported in tank vessels and when the conditions of the harbor permit, will be cleared in the following manner: By means of a steam pump the petroleum or oil will be extracted through a pipe from the ship's tank, and poured into a deposit or deposits, which will be known as "primeros." These deposits must be provided with a tap for running the liquid into two tin or iron receptacles. Each of these two receptacles will be placed on a weighing machine, the tap will then be opened and the receptacles filled up to the point where the required weight is registered.

When the weight has been taken, the liquid will be poured out and each empty receptacle weighed and the weight noted in a book by the customs officer. The petroleum or oil, after it has been weighed, will be run out through a tube fixed in the bottom of the receptacle and fitted to another moveable tube, which will run it into a second deposit, from which it will be conveyed to the refinery. The authorities will exercise the greatest care to prevent any loss to the revenue, either through leakage or any other causes, and will remove the tubing and keys at the end of each day's proceedings.

Oleonaphthas and lubricating oils for the purposes of schedule 23 of the tariff will be understood to be mineral oils used chiefly for oiling machinery, inflammable below 150°, and which, when submitted to the concentrated sulphuric acid test, do not produce a greater increase in temperature than 3° C., nor leave a less volume of tar than 10 per cent, and which, when distilled until a solid residuum is obtained, such residuum does not exceed 3 per cent of the weight of the liquid distilled.

CANNING A PROSPEROUS INDUSTRY.

The depreciated value of Spanish currency has aided the Spanish canning industry, which has steadily developed and prospered during recent years.

By the fall in the value of Spanish silver the cost of production was proportionately reduced, thus enabling Spanish canned goods to be

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offered in foreign markets at such low prices that, in spite of their quality being inferior, it was found possible to open up many new markets. Encouraged by their success Spanish manufacturers next turned their efforts toward improving the quality of their goods, so that not only have they greatly increased their sales, but the standard of quality has been raised. The canning factories now working in Spain number 268, of which 147 are exclusively devoted to sardines, and the remaining 121 to fruits and vegetables. The sardine industry is located on the northwest coast of Spain, in the neighborhood of Vigo. Fruit and vegetables are canned in the Island of Majorca and also at Logrono in the Rioja district. According to official statistics, exports of sardines in tins during 1905 were valued at 35,000,000 pesetas (nearly $6,000,000), though leading members of the trade maintain that the correct figures fall little short of 60,000,000.

SARDINE INDUSTRY.

Concerning the sardine industry in Spain, with particular reference to the demand for cod roe for bait, the consul reports the following facts:

The port from which the greatest quantities of sardines leave Spain is Ayamonte, in the Province of Huelva. Next in importance comes Vigo. There are 79 packing factories in Galicia. The importation of cod's roe into Corunna during the last four years has been as follows from Norway: 1902, 216,802 kilograms; 1903, 284,605; 1904, 286,638; 1905, 394,245. In 1905, 6,533 kilograms were imported from Great Britain, and 248 kilograms from the United States (samples).

In 1904 the average import value of this article was 145 pesetas ($24) per barrel of 150 kilograms, and 150 pesetas ($30) in 1905. It is now offered from Norway at 80 francs ($15.44) f. o. b. Corunna. There are large quantities on hand, but as for some time past the sardine catch has been abnormally small the article is dull of sale.

ALMERIA GRAPE CROP.

COST OF PRODUCTION—OUTLOOK FOR PRESENT YEAR.

Consular Agent Carleton, of Almeria, sends a report on the cultivation and sale of grapes in that section of Spain. He writes:

The excellent financial results of last year's grape crop have been in a small measure offset by the unexpected fall in the rate of exchange of the Spanish peseta. At present the value of the peseta fluctuates between 29 and 30 pesetas to the pound sterling, and if this continues the grape growers must receive a better average price than formerly in order to make even a small profit. The exceptional circumstances of 1905 when, both in England and America, the competing fruits were scarce, are not likely to prevail the coming season. The cost of the production of the Almeria export grape is considerable, notwithstanding the cheapness of labor.

In 1896 the total crop did not amount to over 600,000 barrels, but now the number is between 1,500,000 and 2,000,000. If, for instance, the weather this year should be in every way beneficial for the growth of the fruit, the crop would no doubt amount to 2,500,000 barrels.

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At present 90 per cent of the vines in this region are the rupestris del lot, the remaining 10 per cent being riparia. These vines have shorter lives than the original stock, the average length being from twelve to fifteen years. At the seventh year the vine is at its best, producing three or four barrels each. The vine must be at least four years old before it produces a marketable grape, and during the period of growth the greatest attention must be given to its cultivation.

CLIMATE AND SOIL FAVORABLE.

It is a well-known fact that the Almeria grape can only be grown in this province and the border towns of the province of Granada. The air is extremely dry and little rain falls. I personally know of several people here who, in years past, and even as recent as one year ago, have sent cuttings to California, but, as far as I have knowledge, the results have been negative. In the Argentine Republic the growing of an export grape has been commenced on a large scale, and last year several barresl were sent from here to Buenos Aires in order to show the growers the Almeria method of packing the fruit. From reports here it is understood that ships equipped with refrigerators will be employed in the transportation of the grape.

One of the leading grape growers here, Mr. Ramon Orozco, has at his country place a seedless grape, locally called "Sultanas," which is said to be very similar to the Greek grape bearing the same name. The cuttings were first brought here from Garrucha, a village in this province, about forty years ago. No one seems to know the actual origin of the Garrucha stock. The grape is small, white, and very sweet. Owing to the very few vines in this province no attempt has been made to make the Sultana raisin, so well known to the trade.

COST OF RAISING AND MARKETING.

The following statistics, relative to the necessary expenses in grape culture, have been obtained from various sections of the province, so that the figures represent a reasonable average. I have taken 1 hectare (2.5 acres) as the basis, and the first cost is that of the plantation, the value of the land not being included: 360 vines, $29.49; 250 poles, $61.63; wire, $172.62; work, $32.96. Total, $296.70.

The average cost per year for the cultivation of 1 hectare would be $170.97, and the vines will not bear fruit until the fourth or fifth year. As the small properties are 80 per cent of the whole, this annual cost of cultivation would represent a fair average for the entire province. The only expenses represented in the above amount are labor and fertilizers.

The following statement gives an idea of the cost of placing 1 barrel of grapes on the markets of America and England. The figures indicate the average cost of the barrel and contents without considering the market value of the fruit: Barrel and cork dust, $0.57; cutting, cleaning, and packing, $0.03; transportation, $0.12; cost of production of 50 pounds of grapes, $0.40; total, $1.12.

The expenses from the mole of Almeria to New York or other American ports are averaged at $1.30, and to all English ports 55 cents. Total expenses of placing one barrel on each market would be $3 and $2.07, respectively.

It is apparent that in order to produce a margin of profit to the grower each barrel must bring at least $3.50 in America and $2.19 in

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England. In making these calculations the recent drop in the rate of exchange of the peseta has been taken in consideration.

SHERRY WINE.

METHODS OF MANUFACTURE EXTENT OF SALES.

Commercial Agent Price, of Jerez de la Frontera, makes a report on the manufacture of sherry wine in Spain, and describes its preparation for market. He writes:

The vintage of sherry wine occurs between the 15th of September and the last of October. After the grapes are cut they are left in the sun for two or three days, being covered at night to protect them from the dew. All bad and unripe grapes are separated from the bunches, after which the good grapes are thrown into large, square, wooden troughs, when men, barelegged and wearing heavy shoes with projecting iron nails, tramp out the grapes and the liquid runs into an adjoining vat. The residue of stems, pips, and skins are put into another trough, and after adding water are crushed with a wooden press. The pulp is used for manure and feed for hogs. The liquid obtained, called "must," runs into another receptacle, and is of an inferior quality. When the butts and barrels are filled they are put in the cellars, each barrel having a tin funnel inserted in the bunghole to permit circulation of air. These barrels must have a vacuum of at least 4 gallons to allow the wine to ferment without overflowing. After the fermenting period of about two months the clear liquid is transferred to other barrels carefully, so as not to disturb the sediment at the bottom. The barrels for the ultimate reception of the wine must be of white oak, perfectly clean, and smoked with sulphur to prevent dampness. The barrels are then stored and carefully classified by experts and a name given to the wine in the different butts.

SEVERAL KINDS OF WINE FROM SAME GRAPES.

It always happens that different kinds of wine are obtained from the same grapes grown in the same vineyard and subject to the same treatment. From the same grapes come the mellow (hechos), light (finos), and bouquet (oloroso). Some of the wines are so bad that they are sold as vinegar or burned for alcohol. Alcohol of 95 degrees must be mixed with wine at the rate of 12 pints to the butt of 85 gallons for each degree of strength desired. To properly preserve wine it should have an alcoholic strength of at least 16 degrees, and as pure wine does not possess that it must be strengthened. There are some wines preserved in their natural state, but they are very few.

MACHINERY WANTED.

DEMAND FOR IMPROVED ARTESIAN OUTFITS AND DRILLS.

Frequent inquiries are received by Consul Henry Abert Johnson, at Valencia, from the building trade of that Spanish district for drills. He writes:

Parties desire the best drilling apparatus to sink artesian wells inside houses and in gardens attached to private residences. Good drinking

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water, which is very scarce and expensive here at present, can be reached at a depth of 120 to 130 feet in the city and vicinity and many owners of the better class of dwellings are now looking to artesian wells as the most practical solution of the water problem. Most of the catalogues sent here by American drill manufacturers offer heavy, cumbersome machinery, requiring large working space and consuming quantities of fuel, which, it should be remembered, costs in this district more than double its value in the United States. What is wanted is light, compact machinery which can be worked inside the houses where the wells are to be sunk, and by hand power if necessary.

There is also an expanding demand here for similar light, inexpensive drills for prospecting for iron, copper, and lead ores, since the opening of new railways and improved communications have enhanced the value of the mineral beds of Aragon by cheap access to the sea at this port.

Catalogues of suitable machinery mailed to this consulate will be submitted to parties interested.

CHECK TO TRADE IN TYPEWRITERS.

The revised tariff puts a serious check on a rapidly extending trade in this district in imported typewriters, which are almost exclusively of American manufacture, by enormously increasing the duty from $1.30 to $3 approximately per kilo (2.2 pounds.) As the gross weight of the leading American makes is 13 to 14 kilos the new tariff adds some $40 to the cost and freight price of these machines. General dissatisfaction has been produced in commercial circles by this increase of duty, which is, besides, considered anomalous and unnecessary, because no home industry is fostered by the tariff, as typewriters are not manufactured in Spain, nor is there any prospect of their manufacture here for many years to come.

AUSTRIA-HUNGARY.

GROWTH OF THE EMPIRE'S COMMERCE.

HOW AMERICANS MAY ENTER—GENERAL INDUSTRIAL ACTIVITY.

John S. Twells, commercial agent at Carlsbad, writing in regard to the introduction of American goods, believes there is some reason for the expectation that within a few years various classes of American products will find a sale in that district, which is one of the largest industrial centers of Austria. His letter follows:

The thousands of inhabitants, manufacturers, merchants, and people of northern Bohemia are much more ignorant of American manufactures than American citizens are of Bohemia. A vast majority of the people here think of America only as a country for emigration, where it is easy to prosper, and where many European productions are required.

EXTENT OF AMERICAN SALES.

With the exception of Singer's sewing machines and one or two makes of typewriting machines almost nothing is known in this district of machines or tools made in America. In many retail shops Liebig's

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meat extract and American dried and preserved fruits can be had. Certain manufacturers use American cotton, which they buy in England. Now and then a shoemaker is found who keeps a small stock of American shoes, and leather merchants buy small quantities of leather from America. This is about all that is known concerning American products.

There are numerous difficulties existing which prevent the development of American trade in this part of Austria, and I believe in many others, too. The first is that the people here desire to buy goods direct from the producers in the United States and not through second or third hands. In many lines there seems to be no reason why goods should not be supplied from the United States to well-to-do buyers here. The second and perhaps the greatest difficulty is in the difference of language between America and this country and trade customs and business rules.

From many of the manufacturers' letters which are received at this consular office it appears that our merchants desire to open a trade in this district, and the dealers in this country are supposed to be very desirous to purchase American goods. This is a fallacy.

HOW AUSTRIANS BUY GOODS.

Many American firms offer their goods by sending a pictured price list or booklets, and expect that machines, tools, agricultural implements, and other articles are bought from pictures and that cash is sent with the order. Austrian merchants, on the other hand, are extremely careful to be well posted before ordering from a new or unknown firm. They want to see and examine the articles that are offered to them; they want to know how much the freight, duty, and other expenses come to before they purchase, and in many cases they expect three or four months' credit. The usual terms under which Austrian merchants buy goods from foreign countries are: Payment within thirty days after arrival of the goods against 2 per cent discount, or three or four months' bill from date of invoice. Firms who want a longer credit are not desirable customers.

An Austrian bill of exchange is a powerful legal instrument and a debtor, unless he is a bankrupt, is by it required to pay at once or else judgment is given against him and execution can be obtained within a few days. Objection against such a judgment can not prevent the execution. American exporters should not give open credit for longer than thirty days after arrival of goods or demand an Austrian bill of exchange, if practicable, drawn out by a bank, solicitor, or reliable merchant.

The usual American bill of exchange is not a commendable mode of payment, because it has not the legal force of a proper bill of exchange as understood here, and payment in Austria can only be enforced after a slow legal process. A proper bill of exchange may be made out in the English language, but it must contain the words: "On ———— pay against this bill of exchange."

I wish to draw attention to the ingenious manner which Austrian exporters adopt to make themselves agreeable to foreign business friends. Many firms, as soon as they have business connections in America or England, head their business paper with details in the English language and its invoices and statements are translated into the English language, so that the American or English buyer gets the

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necessary papers in his own language. This is a great advantage, and I am of opinion that the reverse operation would contribute to the extension of American trade in Europe. Exporters should employ good translators who know and reside in the country where trade is sought, which would enable merchants to communicate through them direct with foreign buyers.

CARLSBAD CHINA.

At present there are 50 china factories in Austria, employing about 12,000 persons. Besides this there are a number of clay (kaolin) works and some 50 decorating firms, with 1,500 to 2,000 employees, which buy the white china in order to decorate it. All firms together produce annually $4,000,000 worth of china, of which about $1,000,000 worth goes to the United States.

The American demand for Carlsbad china is increasing. The factories which in former years were nearly idle in winter have been working steadily for three years, and during the autumn season they worked day and night. Still, the quantity of orders annually received in the Carlsbad district is considerably smaller than those received in Germany.

Many new factories have lately been erected on the Austrian frontier of Germany, while in Austria no new factories have been built. The production of china in Germany is estimated to reach in value $24,000,000, or six times as large as that in Austria. Nearly 100 new stoves were built in Germany in 1905, which produced $2,400,000 additional china. In Austria the proprietors of china factories are mostly wealthy merchants, but in spite of the well-known fact that much larger orders could be had if they would build new factories, or, at least, enlarge their present works, they refuse to do so on account of the unsettled state of political affairs. The demand for Austrian china from various countries is so great that Austrian dealers import china from Germany and pay $2 duty per 100 pounds to complete their stock.

TEXTILE AND MUSICAL INSTRUMENT TRADES.

Carlsbad is likewise the center of the principal lace, trimming, and embroidery trade in Austria-Hungary. At Weipert and environs 10,000 persons are employed in making trimmings at home. Between Weipert and Graslitz, a distance of 30 miles, 50,000 persons, of both sexes, make laces—the so-called bobbin work—and there are also 6 large factories making the Barmen-machine laces. Between Graslitz and Gottesgab, a distance of about 10 miles, some 10,000 people make embroidery work, and at Neudek 1,500 workmen are employed in the North German Wool Works and about 800 in Poetzold's Ironworks. The lace trade is very good at present, but most of the goods are ordered from Germany, and are exported to all parts of the world. During the summer season the workmen prefer to go to work in the fields, as they earn more in agricultural work than by making laces, trimmings, and embroidery.

In the district of Asch 50 textile factories employ 15,000 workmen. In Teplitz district 52 factories employ 22,000 workmen.

From Graslitz brass instruments are exported to all parts of the world. There are 10 large factories and 41 makers of brass musical instruments, 16 makers of wood instruments, 86 makers of machines and parts of musical instruments, and 7 factories of toy instruments.

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About $300,000 worth of musical instruments are exported annually from Graslitz, a considerable quantity of which goes to the United States.

COAL MINING AND HOP HARVEST.

In the coal district of Eger-Carlsbad-Aussig 157 coal mines are being worked by a total of 33,548 miners with an average annual output of 1,779,395 tons of brown or peat coal. The 38 coal mines of the Eger-Pilsen-Furth district are being worked by a total of 8,344 persons with an average annual ontput of 1,234,885 tons.

Of course all these factories and coal mines require large quantities of machines, tools, oils, leather, articles of food, etc., but no American market has as yet been opened here in these lines.

The result of the Bohemian hop harvest for the past year was 32,350,700 pounds, or more than double the quantity of previous years.

INDUSTRIAL ACTIVITY.

MANY NEW ENTERPRISES IN BOHEMIA.

Industrial movements in Bohemia are covered in a report from Urbain J. Ledoux, consul at Prague, as follows:

The machine industry is again prosperous. One concern in Prague has just declared a 12 per cent dividend, the highest on record. The new Shoda machine works at Pilsen will be completed by autumn. A paper mill at Leykam is adding $800,000 to its capital for enlarging the works. A new paper and cellulose mill will be erected at Tabor, and a wood-pulp mill at Prague. A large color works is to be built near Dux. Stove works are to be erected at Turnau. An electric plant is to be established by the municipal council at Eger, and several new weaving-mill projects are announced. Breweries are to be rebuilt and modernized at Graupen bei Teplitz and Schlüsselberg.

The leading rubber manufacturers of Austria-Hungary have agreed to advance prices 7 per cent, while the roofing-felt manufacturers of Bohemia have agreed to form a trust. The sole-leather trust put higher prices into effect in April. The petroleum trust has decided to reduce prices by $6 per ton, the object being to stimulate consumption, which has been falling off. The Austro-Hungarian Zinc Company has reduced the prices of zinc plates by $6 per ton.

COST OF DOMESTIC PRODUCTS ADVANCED.

The manufacturers of celluloid wares of Austria-Hungary have raised their prices by 10 per cent, giving as a reason the extraordinary rise of camphor in Japan.

The shoe manufacturers of Prague have met the demands of the workmen respecting the shortening of working hours and increased pay, in consequence of which and also owing to the higher cost of all raw materials, it has been decided to increase the prices of shoes and shoe wares by 20 per cent. This should materially help the sale of American shoes, which have gained considerable popularity in the district, but are considered as a great luxury, owing to their much higher prices than the local products.

HIGHER COST OF LIVING CAUSES STRIKES.

While trade in general shows all the symptoms of a steady improvement, the strike movement in Bohemia has assumed serious propor-

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tions, causing local manufacturers great losses and embarrassments. At a shirt and collar factory in Prague the cutters have gone out on strike, and in consequence the proprietors have given a fortnight's notice to all their 2,000 employees. One of the large breweries at Pilsen brought a strike to an early close by allowing their employees an increase of wages of 10 per cent. The chief argument of the workmen in formulating their demands is the present increased cost of living.

FLUID LENSES.

OPTICAL INVENTION PROVIDES CHEAPER GLASS CRYSTALS.

A report from Consul-General W. A. Rublee, at Vienna, states that after experiments extending over a number of years a Hungarian chemist has succeeded in producing optical lenses by a simple and cheap process, that are not only quite as good as the best massive glass lenses at present used, but that can be manufactured of a size three times as great as the largest homeogeneous glass lens heretofore made.

The importance of this invention in the field of astronomy is obviously very considerable. The largest glass lens heretofore manufactured out of massive glass for astronomical purposes has a diameter of about 1.50 meters (4.92 feet), and it required several years to make it, while the price was several hundred thousands of marks (mark =23.8 cents). Such a lens can be manufactured by the new process in a few weeks at a cost of 2,000 or 3,000 marks. The price of a glass lens of the best German manufacture, with a diameter of 25 centimeters (9.84 inches), is now about 7,000 marks, whereas the price of a similar lens made by the new process is about 150 marks. Lenses of smaller diameter for photographic purposes, for opera glasses, reading glasses, etc., can be produced at correspondingly smaller cost. The lens consists of a fluid substance inclosed between two unusually hard glass surfaces similar to watch crystals, in which the refractive power and other characteristic properties are so chosen that the glass surfaces not only serve to hold the fluid, but also combine with the fluid to overcome such defects as are scarcely to be avoided in ordinary lenses. It is for this reason also that the lens is achromatic.

HERMETICALLY CLOSED.

The fluid contained in the lens is hermetically closed, so that no air can enter and exercise a damaging effect. The fluid does not evaporate, and its composition is such that its properties are not affected by time or by temperature. The coefficient of expansion, both of the glass and of the fluid, is approximately the same between the temperatures of 15 degrees of cold to 60 degrees of heat. Another advantage of the lens is that, on account of the fact that the fluid is not dense and the glass crystals are thin, the whole lens combination through which the light must penetrate is very slight.

These fluid lenses are already manufactured in Austria, and are attracting attention both on account of their utility and the small price at which they are sold. Patents have been taken out in other countries, and they are soon to be introduced everywhere.

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ITALY.

FOREIGN TRADE.

INCREASE IN EXPORTS AND IMPORTS.

Consul-General Hector de Castro, of Rome, furnishes the following comparative statement of the foreign trade of Italy for the years 1904 and 1905:

Articles.	Imports.		Exports.	
	1904.	1905.	1904.	1905.
Chemicals	$15,214,096	$15,406,859	$10,601,871	$11,111,240
Coffee, drugs, and tobacco	9,190,734	9,250,609	2,233,241	2,630,114
Cotton	51,145,166	54,089,505	23,535,632	23,903,884
Drugs	7,061,456	6,950,543	1,473,614	1,472,696
Flour, cereals, etc	45,987,975	56,948,691	34,407,313	38,653,959
Hemp and jute	6,828,072	6,912,284	14,676,108	13,352,127
Hides	15,107,983	14,366,731	6,893,013	7,119,982
Live stock and products	32,482,447	31,310,641	35,442,096	40,746,597
Metals, minerals, etc	56,375,490	61,006,336	8,747,752	9,690,503
Paper and books	6,184,781	6,462,282	3,630,270	4,043,258
Silk	40,070,430	46,365,836	107,612,834	122,419,881
Spirits and oils	9,730,822	11,037,103	21,891,573	18,507,399
Stones and glassware, etc	41,260,965	45,798,841	18,209,002	17,577,115
Wood and straw	18,432,661	20,848,067	17,867,918	16,030,497
Wool and hair	20,732,470	20,418,251	66,830,993	67,733,668
All other articles	6,781,264	7,642,351	6,266,004	7,440,904
Total	382,586,812	415,614,930	380,319,234	402,433,823

CORSET AND DRESS MATERIALS.

GOOD OPENING FOR AMERICAN FEATHERBONE AND OTHER ARTICLES.

Consul Dunning, of Milan, writes that there would appear to be a good opportunity in Italy for the sale of featherbone or other similar material for use in corsets or as foundations for stocks and girdles. His letter continues:

A careful canvass of the best trade in this line in Milan, which is the dressmaking center of the Kingdom, discloses nothing in the way of such material, and I judge that a reasonable amount of earnest work and some careful study of the all-important question of prices would result in a good volume of trade. The stock and girdle material now in use in Italy is whalebone and ordinary bone, the former selling in the smallest lots at about 30 cents per 40 inches, and the ordinary bone at about 8 cents per 40 inches. All of it comes from France. Many corsets are built of steel, with the steel bones well remembered in America before the advent of superior material. In general the Italian corset is very much inferior to the American article. It is open to all the objections which have been argued by dress reformers in the United States and England. The "corseted figure" is the most admired style in feminine dress in Italy, and is affected by the sex from the earliest possible age—most girls of 12 years being corseted into steel jackets as their mothers are. Thus, corsets are more generally used and the proportion of sale is greater according to population. There is no such thing as the "hygienic" waist for girls and young women and it would be useless to attempt to introduce such articles.

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CLOSE TOUCH WITH PARIS.

Milan dressmaking establishments of the first class keep closely in touch with Paris, and those of the second class maintain an equally assiduous watch upon their more enterprising neighbors. It is the custom of the leading dressmakers to import from Paris prior to the opening of every season a series of model gowns upon which is carried out the "construction programme" dictated by the styles and the demands of customers. Women visit the dressmakers, inspect the model gowns, try them on, listen to suggestions, advance their own wishes, and give orders based thereon. It is possible to buy the model dresses themselves if one is ambitious and in funds. So much to indicate that the Milan modes are dictated directly by Paris. In other words, I think it would assist the American exporter intending to enter this field to consider this phase of the case and be guided by it.

The foremost dressmakers in Milan are Felix Laforet, Via Ugo Foscolo, 2; Ventura, 29 Corso Vittorio Emanuele; H. Haardt & Figli, 28 Corso Vittorio Emanuele; Visconti & Donati, Piazza del Duomo; Unione Cooperativa, Via Meravigli; Magazzini Schostal, Corso Vittorio Emanuele; Celestina Bellotti, Galleria V. Emanuele. These are the firms which lead the Italian trade and set the fashion after Paris.

A BRIGHT AMERICAN WOMAN COULD INTRODUCE GOODS.

It will be seen that the field presents large physical possibilities as to the trade, while everyone in the least familiar with Italy will understand the keen spirit of the feminine population in the hunt for novelties in dress and dress materials. Things new are greatly sought for, but with the thrifty spirit peculiar to the country. Correspondence in French as a fixed rule, unless the American exporter can handle it in Italian, should be followed up closely among such dealers and manufacturers here as indicated an interest by a direc personal canvass with a view to making the trade acquainted with the goods. Personal work will be necessary, giving actual demonstrations to the trade on the ground. I can not help thinking that a keen American woman, with a fluent ability in the use of the French language, could come here and take possession of a paying business for some enterprising exporter. To get Milan going would undoubtedly mean to get a hold on all Italy. Having in mind what I said above about the influence of Paris modes in Italy, it would be worth while to work this field in connection with something of a similar sort in France—that is, the Milan trade would take a readier hold if it found its French models put up in the American style.

LOMBARDY.

SUGGESTIONS FOR TRADE EXTENSION.

Consul J. E. Dunning, of Milan, introduces some new and interesting features as to extending American trade in Lombardy that will bear the closest scrutiny. He says:

There are many reasons for believing that the best means for extending American trade in Lombardy lie in a general agency from which the interests of American exporters could be exploited. No agency

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could properly handle the products of more than half a dozen noncompeting firms without a departmental system under a general head. Most American exporters place their goods in the hands of a local firm which deals in the output of many houses in many lands. There are several large firms of this kind in Milan, in the stores of which one finds machines and other manufactures from all parts of the earth jumbled together without special order and sold without the least prejudice or partiality. The customer selects the machine at the price he wants to pay. It is decidedly dangerous to the agent to push one article at the expense of another. In other words, there is not a bit of that concentration of effort required by American manufacturers in the placing of their goods against foreign competition.

DEPARTMENT SYSTEM.

An agency should be built on a department system, under one directing head, with the total of interests divided into groups of noncompeting goods, each under the charge of an American, sent out for the purpose. The supervising agent and every department or group director under him should be American born and American trained, equipped with foreign travel and experience, and able to conduct any business transaction in the language of the country in which he is stationed. Such an agency could be organized and sustained at a cost less than is now paid by individual firms working haphazzard and out of touch with the foreign field. There is no comparison between this method and that of sending goods which go into the already crowded stores of some general agent, who, in trying to be everybody's factor, diffuses his efforts and gives to the American product nothing of the special attention it needs.

SPLENDID OPPORTUNITIES FOR YOUNG MEN.

American young men attached to the great manufacturing houses engaged in the export trade could be used to immense advantage conducting these special agencies. Lombardy is a splendid field in which ambitious men of energy with the knack of salesmanship, ability to press new claims without arousing conservative resentment, and capable of speaking readily the Italian, French, and German languages, can find large rewards for their talents. The present system of American representation is inadequate, and in the near future it will be out of date and will prevent an advancement of trade into territory hotly contested by the other active mercantile peoples.

BROOM MAKING.

CHEAP LABOR AND CHEAP PRODUCT RESTRICT USE OF MACHINERY.

Consul Dunning discusses the broom business in Italy from the viewpoint of introducing American machinery for the manufacture of brooms, the prospects for which are pictured as poor. He writes:

The Italian corn broom is inferior in every way to the American article. The corn is of darker color and more brittle, the wiring is scanty, and the stick is of no relation in stoutness or appearance to its

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smartly varnished Yankee cousin. I do not believe there is at present any sort of opportunity in Italy for the introduction of power machinery for broom manufacture. There is one small broom factory in Milan. The center of the trade is in Venice and Tuscany, and in the latter province the best corn is grown. It is not grown according to scientific principles, the cultivation being in the hands of peasants and the area considerably limited, though the climate serves well. Brooms sell in Milan, the most expensive Italian city, at 20 cents for the best grade each. Those of lesser quality may be had at from 12 to 18 cents. Besides the corn brooms, there are brooms made of a certain tough grass, which are useful for sweeping highly polished floors on account of their soft texture.

LABOR CHEAP AND ABUNDANT.

My reason for discouraging efforts to enter the Milan field with power broom-making machines is that hand labor is so plentiful and cheap. The industry is conducted on an exceedingly modest scale. Women make up the larger part of the persons employed, and their wages will probably not average over 35 cents a day at the outside. My recent report on female labor in north Italy will be of value on this point to exporters following the consular publications regularly. (See notes on "Industrial Italy," Daily Consular and Trade Reports, February 21, 1906.) Thousands of brooms are made in the homes of peasants and are brought in small lots, at more or less regular intervals, to some central point for purchase by the contractor handling the business. Thus the cost of manufacture is very low—certainly very much under anything like the prices listed in the consulate trade papers. I doubt if American exporters could turn out brooms to retail at $2.40 a dozen, best grade. Of course the situation is not sufficiently similar to make that a sound argument, nor is the quality equal; but in Italy the first consideration is moderate price, regardless of quality.

Finally, in a conversation with a man acquainted with the details of the industry in Italy, I was told that brooms could be made by hand at a price lower than the cost of electric current with which to run power machines. A few foot machines are used, but they are primitive. At present the people are too well able to supply their historically modest wants in a way peculiarly suited to their purchasing power. The average Italian housekeeper—and the housekeepers are invariably of the servant class—wants a cheap broom, and she is happy if she gets it.

However, I should be glad to have some enterprising American maker of broom stitchers and such machinery send me catalogues in French and English and letters describing their ideas.

AMERICAN MEAT OPPORTUNITY.

BUTCHERS' STRIKE IN VENICE CREATES NEW ORDER OF BUSINESS.

Consul Paul Nash tells in a letter from Venice of the introduction of frozen meats from abroad in that city, writing:

With a view to checking the spread of tuberculosis, the Italian Parliament passed a law in 1903 requiring municipalities or communal authorities to destroy all butchers' meat badly infected with that dis-

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ease, and to sterilize at 108° C. any meat partially infected with it. Because of the absence of the proper appliances for sterilization on a large scale, and for other reasons, this law has only just been applied in Venice. The proclamation of the intention to enforce it resulted in much indignation among the master butchers, who maintained that, as the law was not enforced in many other places in Italy, it was unjust that it should be made active here. To this the municipal authorities replied that they had no choice in the matter, whereupon a general strike was declared, and the 120 butchers' shops were closed.

The municipality realizing the necessity for action, and with a most commendable energy, within a few days opened no less than 25 shops, where excellent meat was sold at somewhat less than the normal price. As a measure of economy, large quantities of South American beef and Australian mutton were bought at 10 to 12 cents per pound by the authorities from the cold-storage warehouse at Genoa. This frozen meat has proved very satisfactory and, although at first the cutters did not know how to handle it and the cuts were very unevenly made, they now have learned to what extent the beef should be thawed before cutting, and I hear that it is becoming very popular. In a previous report I mentioned a possible future for American beef in Italy, and now suggest that our exporters should investigate the matter with a view to competing with Argentina.

An interesting result of the law above referred to has been the establishing of a company for insuring butchers against loss by condemnation of beef by the sanitary officials. I am told that butchers pay to this company a premium for each head of cattle slaughtered in the municipal abattoirs or for carcases brought there for inspection, and that if the meat is condemned the company reimburses the dealer and retains the carcass to be sold for food, after being sterilized, if only partially infected, or to be used for industrial purposes if found unfit for human consumption. It appears that the unsanitary stabling of cattle here makes tuberculosis very prevalent among them.

SWITZERLAND.

POSSIBILITIES FOR AMERICAN GOODS.

PRACTICAL SUGGESTIONS FOR SECURING MORE TRADE AT GENEVA.

Consul Keene writes from Geneva a highly practical trade letter, giving Americans exactly the information they need to further their commercial interests in Switzerland, as follows:

American boots and shoes are conspicuously offered to the public in the shop windows of Geneva, and are increasingly favored, not only by American tourists but also by the natives. Now that the cheaper article is imported (American shoes are offered for sale from about $3) and the duty has been lessened since January, 1, 1906, I have no doubt that the home manufacturers will reap a good harvest in sending their articles to Switzerland.

There is no reason why they should not push their sales vigorously. They have articles of superior quality at very moderate prices, and I think American boots and shoes ought to be offered for sale not only

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to Americans and by the principal retail dealers, but the wholesale dealers, of whom I append a list, should be induced to import direct. These wholesale firms have agents who canvass the whole country all the year round. A great expansion of trade should result. It is always timely to repeat that the industrious Europeans, having imitated the attractive American styles of shoes, push the sale of these goods by their ubiquitous, enterprising salesmen. Many a pair of shoes labeled "American" were really made in Germany or Italy. The dealers here say that the demand for American shoes had a great setback a few years ago, when certain dealers of New York, more enterprising than scrupulous, sold in Europe large lots of shoes that were of fine appearance but of shoddy make. They say it was a deliberate swindle, and that for a time it made buyers chary about placing orders with American houses.

MACHINERY AND MOTORS IN DEMAND.

Tool machinery is less advertised, but there are at least two firms in Geneva which import and favor American articles. One of them is perhaps the only important one in Switzerland dealing extensively in that line. American agricultural machines are again in favor—their imports came second in 1903 and 1904; in fact, they nearly doubled during the latter year; but Germans continue to supply the most agricultural machines, not because their products are better, but on account of the numerous travelers in all branches they keep in Switzerland. Returns for 1905 will again show a large increase, as great imports were made to avoid the increased duties since January 1, 1906.

American motors for lake boats have also been imported, but one firm here stated to me that they did not yet fully answer their advertised qualities. Some improvements seemed necessary before being able to compete successfully on the market. I think, however, that the motor was not alone responsible for the lack of success, but the boat itself might not have been perfect. This is an entirely new field, and it is difficult to say what line it is best for American manufacturers to follow. Small engine boats are numerous enough on the lake of Geneva, but in comparison with the expanse of water there might be far more; the season for motor boating, however, is short.

Cycles and automobiles have taken a great place in the outdoor life here. Although American bicycles were advertised largely in the past years and are still somewhat advertised, imports have decreased steadily, and only 213 bicycles were imported into Switzerland from America in 1904. (Total imports for 1904, 17,552; for 1905, 20,956.) Last year will hardly show a more encouraging result. The new custom duty amounts to $2.31 apiece, against $19.30 per 220 pounds, gross weight, paid by American bicycles last year.

SEWING MACHINES AND CANNED GOODS.

Besides the big shops owned here, and also at Lausanne, by one of our largest and most popular sewing-machine manufacturers, whose articles are advertised largely, there are smaller dealers (see list appended), but they handle mostly Swiss, English, and, above all, German manufactures. The imports of the American article, which

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amounted to nearly $38,600 in 1903, declined to about $19,300 in 1904. It is expected that 1905 will show an import like 1903, but it must be borne in mind that the new tariff increased the duty from 77.2 cents to $1.544 per 220 pounds and that a good stock was imported before January 1.

Swiss preserves of fruits and vegetables, and custom duties on goods of this kind, probably prevent successful imports of the American articles. American specialties are consumed to a small extent by hotels and Americans temporarily residing here. They are advertised by retailers, but I think their importation could be increased if wholesale firms, of which I also give a list, could be induced by the home manufacturers to take charge of the imports of the best known articles. American preserves of meat are superior to all others, and their imports lead all others. I do not think that the custom duty, which, since January 1, has been increased from $1.54 to $2.70 per 220 pounds (gross weight), will make them lose their lead.

RUSSIA.

FOREIGN COMMERCE.

HEAVY DECREASES IN FOREIGN TRADE LAST YEAR.

The official Commercial and Industrial Gazette at St. Petersburg publishes statistics of the foreign trade of Russia covering quantities of certain imports and exports, via European frontiers, during the year 1905. The following comparative figures show a falling off in many lines of trade, although a few items show substantial increases:

	Tons—2,000 pounds.	
	1905.	1904.
IMPORTS.		
Tea, all kinds	40,037	32,932
Tea, via Irkutsk	2,669	4,797
Coal	3,995,437	3,490,485
Coke	478,937	642,769
Portable farming engines	8,783	10,019
Agricultural machines and implements	22,381	23,085
Sheet iron and steel	36,286	35,475
Iron and steel, bar and assorted	22,075	21,949
Machinery, all kinds	57,910	58,145
Herrings, and other fish	176,059	202,597
Wool, raw, combed, spun, and twisted	24,924	18,594
Cotton, raw	168,681	196,752
Cotton, raw, by Asiatic frontier	20,416	20,055
Silk, raw, and silk wad	1,118	1,046
EXPORTS.		
Butter	41,949	43,085
Eggs ..... gross	20,554,514	18,873,165
Hides and skins	19,424	20,758
Light illuminating oils	698,396	1,506,983
Light illuminating oils, via Baku	26,692	24,167
Light illuminating oils to Finland	31,669	30,425
Logs	1,032,052	1,059,376
Beams, girders, rafters, etc	415,923	325,405
Deals, including battens, sleepers, etc	2,311,266	2,065,945

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ASIA.

CHINA.

GOOD MARKET FOR MANUFACTURES.

VALUE OF DIRECT REPRESENTATION—SALES OF COTTON GOODS.

Consul Anderson covers the development of American trade in China in a practical way, making suggestions of great value to those seeking for eastern markets. He writes from Amoy:

Asiatic representatives of American houses complain of difficulty in obtaining from their firms salable goods in such shapes that the conditions of the Chinese and other eastern markets can be met. A representative of a cracker or biscuit firm says that it has been almost an impossibility to get his firm to put in machinery for the manufacture of tins for packing their export products. The East has become accustomed to European tinned packages, which are really more suitable than those from America. Such firms reply that they have no certainty the trade can be had should they put in the costly machinery. Nevertheless, the market for biscuits is large and growing immensely larger. No country can better supply it than the United States. English goods have been coming to the Orient for years and have high standing, so if this American biscuit concern wishes to obtain a share of the Asiatic trade it will have to prepare for such trade.

HOSIERY AND SOAP OPENING.

There is a large and increasing market in China for socks of a certain form and grade. Such goods have been manufactured in England and Germany from American cotton for some time, and their use is becoming popular. It is the same old story of American interests hesitating to take advantage of a trade opportunity simply from risk or possible hard work it would require to establish a new business upon a permanent profitable basis. A certain steamship from the United States several weeks ago brought 30,000 dozen of these goods, which the agent concerned, who had been canvassing the East previously, brought out at what amounted to a loss to himself to demonstrate what could be done with such goods. The same vessel brought out 600 tons of soap of a special grade and brand, which was exported under similar conditions. It ought to be said in this connection, however, that there are some American soap interests which are pushing the sale of their products in the Far East vigorously and that their campaign is paying them well.

THE PIVOTAL POINT FOR COTTON MANUFACTURERS.

It is true that during the past year the United States has made extraordinary sales of cotton goods to China and the East generally, but

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there is no reason to expect that they will be maintained without effort. This trade varies in volume and value in a manner which gives promise of permanency only if properly looked after. The proposed commission of American cotton men to investigate the trade situation in the Orient will be of value if it will secure for American cotton interests generally definite and reliable data as to what direct representation of American cotton interests in the principal Chinese ports will cost and what may be expected from such representation.

I doubt if any permanent benefits follow the work of such a commission in this or any other line which does not accomplish systematic representation of American business interests—a system of commercial travelers and salesmen working under headquarters at Shanghai or Hongkong, in China, and at Yokohama, in Japan. From the tone of inquiries received from American business men by consulates in the East I believe that American business men realize this, but are disposed to wait until the situation is further developed before incurring expense. It may be said, with respect to this disposition, that the longer the development of trade in the East is postponed by American interests the more difficult it will be to secure a foothold.

TEA TRADE.

STEADILY DECREASING EXPORTS—METHODS ESSENTIAL TO ARREST DECLINE.

Mr. Anderson, writing on the tea trade of China, says:

The prospect for the continuation of the reexport of Formosan oolong tea from Amoy, in line with many years of the tea trade of the world, is not very bright at present. It has been hoped that some means of reviving the drooping Chinese industry could be devised, and a number of plans for the salvation of the industry have been considered.

So far as the revival of the Chinese production and exportation of Oolong teas is concerned there seems to be no hope at present. The tea commission, which has investigated the situation at Ceylon and India with reference to Chinese needs, seems to be divided as to the actual needs of the Chinese industry, and nothing very tangible has resulted from its mission. It seems to be the opinion of those in position to judge, that tea of similar grades can be produced in China at least as cheaply as it can in India, and as a rule the Chinese teas are better teas. But the manner of marketing Chinese teas is faulty, and the control of the quality of the product is imperfect. The result is that Chinese teas often are not reliable, and dealers find it difficult to deal in them safely.

NEEDS OF THE INDUSTRY.

The great need of the Chinese tea industry seems to be some central authority to control the business, bettering the means and methods of distribution and sale, improving the quality of the product, introducing the most modern scientific methods in the production and care of the tea, and inaugurating a systematic advertising and demonstrating campaign in behalf of what is really a superior product. There is also need of an immediate and absolute abolishment of all Government taxes upon the industry for at least ten years.

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Chinese officials seem to agree that it is very improbable that any of these reforms can be effected. So far as a union of Chinese tea interests is concerned, it is doubtful if anything more can be effected than has already been accomplished in the Chinese Tea Guild, an organization which is in the control of interests too reactionary to promise any betterment. The division of governmental functions between the central government at Peking and the several provincial governments renders it practically impossible to secure the abolishment of the tax on tea. Until some means of raising the taxes now derived from tea comes to hand, the several viceroys and governors will remit no tea taxes, and inasmuch as almost everything in China is taxed to the utmost it is doubtful if any such means can be secured. The Chinese officials, generally, realize that the tea industry, so far as exports are concerned, is passing away from China, but they are not able to rise to the need of the moment and prevent such a calamity.

COMPARISON FOR TWO YEARS.

The tea season for 1905–6 seems to be practically closed. Commercial reports indicate that there has been a great falling off in the total exports of tea from China as compared with those for the previous season. One exporting firm's reports, probably the most reliable, place the total exports for the two seasons at the following figures:

	1905–6.	1904–5.
	Pounds.	*Pounds.*
Great Britain	a 32,222,623	37,744,093
The Continent	8,045,423	28,308,140
Russia	6,600,331	8,224,764
America	43,651,312	48,581,412
Australia	685,544	1,125,470
South America	164,479	194,660
Total	91,369,712	124,178,539

a Of the above about 18,000,000 pounds were cleared for English ports, but intended to be forwarded to Russia.

China is still far and away the greatest tea-producing and tea-exporting nation of the world, but present indications are that its hold upon the export trade is rapidly being loosened. Modern business methods would easily save the trade to the Empire, but in spite of promises and considerable talk it is very doubtful indeed if any reasonable degree of success will meet the efforts being put forth to save it.

PRODUCING OOLONG TEAS.

It is impossible at this distance to express an opinion of value as to why American experiments in the manufacture of oolong teas have so far been of doubtful success. In the manufacture of tea so much depends upon little things which affect the exact chemical or physical condition of the leaf that even where the leaf itself and the general process itself are the same there may be important differences in results because of very slight variations in conditions. In teas of the hand-cured varieties no opinion but that of experts actually familiar with processes and leaf in both countries concerned can be relied upon safely. It is possible, however, that even a general description of how

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oolong teas are cured in Formosa may furnish some hints which may be of value in the experiments which are being continued in the United States.

It may be said, in the first place, that Formosan plants used for oolong teas are more rank in their growth as a rule than the Hangchow teas used in the United States for such teas, but possibly this is due more to the climate of Formosa being much more damp and much warmer than the American fields than to any great difference in the plants themselves. The leaf is handled less expeditiously in Formosa than it seems to be in the United States. It is picked by women and children mostly, and as picked it is placed in closely woven baskets, which are sometimes lined with jute cloth.

CURING THE LEAVES.

When delivered by the pickers to the curing house, the leaves are spread out in the open air, in the sunshine if possible, on a bamboo mat or in low bamboo trays, and are there stirred every five or seven minutes, until the leaves are somewhat wilted, the edges pliable, and signs of fermentation are visible. The length of time required for this depends upon the sun, temperature, and similar conditions. The tea is then placed in bamboo trays, about 4 pounds in a tray, which are placed in a rack, one above the other, with enough space between to permit free circulation of air and to enable the workmen to manipulate the leaves. The leaves are stirred up in these trays at intervals of from seven to twelve minutes, as required, the fermentation being regulated and kept as even as possible in this manner. Fermentation ordinarily is allowed to proceed for about two hours, after which a rack of tea, about 40 pounds of the leaf as a rule, is turned into a large circular bamboo tray and is again stirred and manipulated for two hours more, at the end of which time the edges of the leaf are somewhat dry, reddish brown in color, and with considerable of the odor of prepared tea.

THE FIRING PROCESS.

The leaf is then taken in lots of 4 or 5 pounds and placed in metal firing pans over charcoal fires hot enough to wilt and curl the leaf, giving it the soft, sponge-like quality of damp tea leaves and enabling it to be rolled, this firing or wilting being accompanied by rapid stirring and tossing the leaf in each pan. The lot of tea is then turned into a round-bottomed pan fixed in the end of a bench, upon which a workman sits, and the leaf is then rolled by hand to give it something of the form of ordinary country-cured Chinese or Japanese teas. The tea is given a second pan drying, followed by another rolling, and sometimes even by a third drying and rolling, although generally two rollings suffice. This rolling is followed by a drying sufficient to get the leaf in such shape that it can be transported to the export firer. This alternate process of drying and rolling varies with the weather, and indeed the whole process depends upon the conditions surrounding the leaf. The process takes the green leaf, oxidizes or ferments it until the edges turn a reddish brown and the entire leaf is wilted; then wilts the leaf over a fire until it can be rolled to give it form, later drying it for temporary packing. This latter process often includes a light firing in a basket over a charcoal fire.

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FIRING FOR EXPORT.

The tea thus prepared for temporary keeping is known as "green leaf." It is packed in jute bags holding about half a picul, or about 66 pounds, and is transported to the export firer. The leaf thus packed is dry, but it lacks the brittle condition of the tea as it is received abroad, and generally is much lighter in color than oolong as known to the trade. When received at the firing house it is picked over by women and girls for the removal of stems, dirt, or foreign matter generally. The final firing for export is done in bamboo baskets, giving the name of "basket fired" to the product. The firing which produces characteristic oolong is generally done in a medium-sized room in some of the great brick buildings housing the great tea establishments. In a firing room a brick platform about 20 inches high is constructed, in which are round holes about 2 feet deep and 2 feet in diameter, ordinarily about a foot apart, and numbering from 50 to 300 or even 400 in an establishment. In each one of these holes a charcoal fire is built and the charcoal is burned until all flame disappears, the room becoming a great furnace into which the coolies rush with covered mouths and nostrils to stir the fires and prepare the little furnaces. When finally the charcoal in each hole or furnace becomes a bed of live coals without flame, it is covered with charcoal ashes to temper the heat and preserve the fire. The entire room is still hot and is maintained in that condition for days at a time. Ordinarily it will require perhaps twelve hours to burn the charcoal to a proper condition and have the room at a proper temperature, the covered charcoal giving off a steady heat.

The firing is done in bamboo baskets about 3 feet high and a little over 2 feet in diameter, open at both ends, and with a sieve placed a little below the center as a bottom. Such a basket is placed over an open furnace or hole in the brick platform, and about 7 pounds of the green leaf are placed in it. The leaf is practically untouched for about three hours, until the quantity of leaf in the basket has become thoroughly and evenly heated, naturally running through a slight wilting in becoming heated. Firers then pass from basket to basket stirring the leaf, so as to keep the drying process even and regular; ordinarily about an hour between the stirrings being sufficient. It generally requires from seven to twelve hours of such firing to thoroughly evaporate all moisture in the leaf, baskets generally being set in the evening and removed in the morning, the tea being boxed while warm. The firing of the tea also varies for the variety of tea desired, heavily fired teas being desirable for some markets because of the darker infusion they give.

MACHINE CURING NOT SATISFACTORY.

Machine curing of tea has been attempted in Formosa, and the Japanese Government is now supporting an experimental machine plant at Anping, Formosa. It is generally agreed by tea men, however, that the results so far have not been successful or satisfactory from any standpoint and that the plant is run at a loss. There is no present likelihood of the machine method succeeding that of hand firing. The fact is that while, of course, oolong tea derives more or less of its meri-

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torious qualities from the nature of the leaf itself, there is peculiar merit in the manner in which the leaf is handled and much depends upon little things which a machine can not accomplish. From this fact it may be perceived readily that any description of the process of curing these teas will necessarily be incomplete and more or less unreliable which does not represent the actual experience and work of experts, in this case Chinese workmen.

Since conditions of climate, as well as of the leaf to be cured, vary greatly, it is impossible to pass upon the matter of oxidation or fermentation satisfactorily by ascribing a certain time to a certain process, when, as a matter of actual practice, it may require much more or much less time to effect such process under different conditions. Either expert workmen from China or Formosa should be employed in the United States, or American tea men should have a practical training in the processes of making teas in China or Japan, or at least should make a personal investigation of such processes. I certainly see no reason why oolong teas should not be grown and properly cured in the United States with success, since other varieties of tea are being successfully produced.

LANGUAGE DIFFICULTIES.

MANY DIALECTS USELESS FOR COMMERCIAL PURPOSES.

Consul Anderson gives an interesting account of the very great difficulty in learning the multiplicity of dialects in China, and he holds that the study of Chinese for commercial purposes is unwise, unnecessary, and unprofitable. The way to avoid the difficulty is to employ Chinese and train them in the United States. Mr. Anderson writes:

The Chinese is a primitive language, unsuited to the needs of a modern nation, and is inadequate to the demands of many of the arts, sciences, professions, and general activities of modern civilization. From a general commercial standpoint it is a drawback that the Chinese language, or rather languages, have no connection with or similarity to European languages, thus restricting communication with other nations. The Chinese is an ideograph language, written by character for an idea, rather than by letters and syllables based upon sounds of the spoken language, and this further restricts communication. The Chinese written language is different from the spoken language of each dialect, and thus further trouble is experienced in communication. If there was one language for the whole of China all these difficulties might be disposed of with comparative ease. As a practical commercial proposition, however, the inadequacies of the language itself, the lack of uniformity in the several parts of China, and the rapid development of communication in other languages, especially in English, all combine to make it, in my opinion, not worth the while of foreign commercial interests to encourage the study of the Chinese language.

DIFFICULT TO LEARN.

It is hardly necessary to discuss the difficulty of mastering the Chinese language. It is said by competent authorities that there is only one foreigner in China at the pr sent time who may reasonably be said

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to have mastered it. Few foreigners ever come within measurable distance of mastering any one dialect as they would master any other tongue. Few Chinese are familiar with any more than their own local dialect, while the number of Chinese who can write the language or languages even in colloquial form is very limited. It should be realized first of all in a discussion of this subject that the Chinese language is not a homogeneous language. The multiplicity of dialects, where the differences and variations may be said to be dialectic rather than an actual difference in languages, their extraordinary range of variation in short distances, and the tenacity with which the people of the several districts hold to their original tongues, is a constant source of wonder to the foreigner. To see two Chinamen, born within 10 miles of each other, arguing, gesticulating, and growing angry in a vain endeavor of one to have the other understand him naturally impresses a foreigner, and yet such a thing is not unusual. A friend tells me of two coolies in Peking who had a violent quarrel and came to blows over a cent, simply because they were not able to understand each other, although both of them were speaking the Pekinese Mandarin dialect as the common people speak it. It is a common joke among foreigners that the Chinese must indicate by signs or gestures what they are to talk about at the beginning of a conversation before they can understand what the persons concerned are saying. The joke comes too near the truth to be very funny. The Chinese language seems to be exact in nothing. It "about" expresses an idea to be conveyed, and the ideograph system of writing "about" expresses what it is supposed to show. No one is sure in sending an official dispatch or a private communication whether it will be taken in the sense intended or not. Clear cut, definite, and ready communication, so essential to business life, scarcely seems practicable in the Chinese language.

A DIFFERENT LANGUAGE EVERY 25 MILES.

Between Foochow and Amoy, possibly 85 miles in an air line, there is no general linguistic connection among the people for any 25 miles of the distance. Even in the northern provinces, where the language is more uniform and approaches a common language, there are similar difficulties. If the scheme of teaching the Chinese language to foreigners for commercial purposes would succeed anywhere it would be in the northern provinces. A missionary who had spent twenty-five years in hospital work in Ningpo, where he had more or less communication with Chinese from a large range of territory in Chekiang Province, found on traveling in the interior that he could with difficulty get along in following the ordinary transactions of life. Under such circumstances and in the face of such conditions what could be expected of a foreign commercial representative, although he had devoted years to the study of the language or dialect of a single district and had become reasonably conversant with such language. Were he well grounded in all the languages or dialects of a province, which for commercial purposes would hardly be practicable, his entire commercial career in China, so far as it depended upon his knowledge of the Chinese language, would be confined to about one-twentieth of the Chinese Empire. So long as the governor of every province in China requires an interpreter to deal with his own people—the people he governs—it is safe to say that foreign business men can not expect to be free from the necessity of similar service.

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MOST SUCCESSFUL MEN DO NOT SPEAK CHINESE.

As a matter of fact the most successful foreign business men in China at the present time do not know the Chinese language. The greatest need of American trade is improved, or rather more general representation of special interests, but this representation should be more Chinese in its actual relations with the Chinese people than might at first appear to be advantageous. At the present time American concerns now represented directly in the Chinese field depend for their business upon agencies held by business houses in the several open ports of the Empire. There are a few foreign firms who have what may be called traveling men, but to the present time they are in the minority, and the great expense of keeping men in the field holds back many other concerns from putting out more direct representatives. The old business houses handle foreign goods mostly upon commission very largely, because most of them originally were commission houses and because of the constant danger of loss by exchange fluctuations. Naturally such representation favors existing conditions and non-American trade. Most of the firms are British, and, naturally, they would rather handle British goods than American goods. There is need of direct American representation of American firms, and this representation, naturally, should first come at Hongkong and Shanghai, the two ports representing the great trade divisions of China. The most successful American concerns so far in the field have found it advantageous to place foreigners, generally energetic young men, in charge of headquarters and employ a Chinese working force under them. It is usual in China for this Chinese working force—a force of subagents or whatever this actual working force may be called—to be employed by the compradores of the head agencies. The system, in short, is little more than the employment of Chinese traveling men working under trained foreigners.

FOREIGNERS MUST EMPLOY CHINESE.

I believe that American trade in China can best be served, in the long run, by the employment of the Chinese themselves, working under trained foreigners. And as trade develops, I believe it far more practicable for all reasons that young Chinese men should be trained in the United States for employment in China rather than that foreigners should be forced to attempt the impossible in the use of the Chinese language. The present system of employing a comprador, and through him a Chinese force generally, has been successful, and there is no reason why it should not be even more successful in the future. It is evident that even if a foreign agent masters a considerable portion of the Chinese language, enough for ordinary business transactions, he will have to depend upon Chinese interpreters for communication with other provinces than the one in which he is employed and upon Chinese writers generally. Nor does it follow that because a foreigner has learned to speak the Chinese language he is reliably familiar with the Chinese people. Knowledge of the Chinese language does not insure admission to the inner business life of the Chinese people any more than it carries with it admission to the inner social life of the Chinese people. It may assist, but it is not a save-all or a cure-all. The most successful foreigners in China are giving little

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or no attention to the Chinese language. The most successful foreign houses, among them the two most successful American concerns in the Orient, do business through foreign agents who use only the English language. Their business is carried on mostly through compradors, and the business houses with compradors are the business houses which pay. The Chinese can do business with their own people better than foreigners can do it.

CHINESE EAGER TO LEARN ENGLISH.

The multiplicity of dialects and linguistic differences in China is one of the most remarkable features of Chinese civilization. It is no matter of wonder that all over those portions of China affected by western civilization and progressive ideas there are schools crowded with Chinese boys learning rudimentary science and the English language. A prominent Chinese imperial maritime customs official has expressed the opinion to me that in ten years the principal business of China would be transacted in the English language, and that in twenty years the Chinese business man who could not speak English would be greatly handicapped. This is the case in the coast ports at the present time.

Since the Chinese people must learn one or more languages to enable them to do business in other portions of China, than those whose language they know, it is only reasonable that they should learn a language which should be common to foreigners and to more or less of the Chinese people. It certainly seems strange to see two Chinamen unable to communicate with each other in any language but the English, but this is a common experience in ports along the coast where Chinese from several provinces or localities are employed in foreign firms. And it is the most logical way out of the present situation in China. The English language is the coming commercial language of China.

CHINESE STUDENTS FOR AMERICA.

The newcomer in Japan is astonished to see even the jinrikisha coolies and porters in hotels studying English primers. But it is the logical course for all eastern education. The Chinese writer in the American consulate at Hangchow while I was stationed there received about $35 Mexican or about $15 gold per month. Had he possessed a working knowledge of the English language, written and spoken, he would have been worth five times that amount. He knew it, and it was only the logic of circumstances that his younger brother was a student of the English language. I had a house boy who received $14 Mexican or about $6 gold per month, and another who received $8 Mexican or about $3.50 gold per month. The former spoke pigeon English, the latter nothing but Chinese. The higher priced men are in greater demand than other employees. There is no people in the world who appreciate the force of such conditions any more than the Chinese. All over the nation schools are being established whose first requirement is the teaching of the English language. The anxiety of young Chinese men to study abroad, to acquire a foreign education generally, and to learn foreign business methods in particular renders this plan not only practicable but almost mandatory upon a nation which expects to do business in China. It would work to the advantage of the busi-

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ness interests of the United States in every way and would interfere with no American interests. It would furnish the means of conducting foreign business in China and at the same time would predispose young Chinese business men in favor of American goods, American methods, and American interests. At all events a study of the Chinese language for commercial purposes by Americans is in my opinion unwise, unnecessary, and unprofitable, but American business interests concerned in eastern trade can with profit see to it that young Chinese men are given business education in the United States.

CURRENCY CHANGES.

BOYCOTT AGAINST USE OF THE NEW COINS.

Vice-Consul Cloud, of Hangchow, reports that the copper coinage industry in Chekiang, which for many months past has proved such a veritable gold mine for the group of mandarins in charge of it, has recently all but collapsed and the local mints have shut down, at least for the present. The consul writes:

The alleged reason for this suspension of coinage is that they are waiting for the new uniform stamps adopted by the Imperial Government for all the Provinces, but investigation discloses the fact that the merchants of Hangchow, and generally throughout the Province, have instituted a well-organized boycott against the use of the new coins, refusing to accept them in amounts exceeding 10 and 20 Mexican cents' worth. Under these circumstances, and the fact that exportation of these coins to other Provinces has been prohibited by the various provincial governors, the mints could no longer dispose of their enormous output without reducing the price of the coins to an absurdly low figure. As it is, the market value of the 10-cash pieces at the mints has fallen 25 per cent. In some of the smaller towns of the Province a much greater decline has taken place, and at the present writing (February 18) it is difficult to dispose of them at any price.

CAUSES OF DEPRECIATION.

This unheard-of depreciation in the value of the copper coins must be attributable to good and substantial causes in view of the present high rates of interest, and the fact that there is scarcely enough "legal-tender" money in circulation to meet the necessary demands of trade. Nor are these causes hard to discover. They are, first and foremost, an attempt to force upon the people a debased token money, and, second, an overproduction of the coins. Careful analyses made of an average lot of the old square-holed "cash," and of two classes of these new coins—the 10-cash pieces imported from Japan in the form of disks and stamped in the mints here, and the 20-cash pieces made from copper sheets rolled in the Hangchow mints—show that the two 10-cash pieces contained 222.5, and the 20-cash piece 206.55 grains of pure copper, while the twenty pieces of old square-holed cash contained 772.95 grains of pure copper. By taking the average amount of copper contained in the two classes of new coins, as both are in circulation, it is found that they contain in 20-cash nominal value 214.52 grains of metallic copper; but in 20-cash nominal value of the old coins there

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are 772.95 grains of metallic copper. Therefore, the amount of pure copper in 20 cash of the old coins is just 3.6 times as much as it is in 20 cash of the new coins. Thus it may be seen that the millions of new 10-cash pieces which have been forced upon the people as representing 10 cash of value are actually worth but $2\frac{7}{10}$ cash—a shortage of $7\frac{3}{10}$ cash on each coin, or $7\frac{3}{10}$ out of each 10 cash. According to this showing this same kind of new 10-cash piece could be minted and sold as low as 300 coins to the Mexican dollar and still net the mint a profit sufficient to more than pay the expenses of minting.

RELATIVE VALUE OF NEW AND OLD COINS.

There are in Hangchow two copper mints with a combined capacity of 72 stamping machines. Allowing an average of 60 coins a minute to each machine (some of the machines stamp more than 85 a minute) and 18 hours work per diem (they often run 24 hours each day) we find the daily output of these mints to be 4,665,600 coins. The capacity of the mints has been greatly enlarged within the past year. At the present rate of exchange (115 coins to $1) this daily output represents a value in Mexican dollars of 40,570 (gold, $20,285). From the assay it was found that one of these coins, measured in terms of the old cash, was only worth $2\frac{7}{10}$ cash, making the daily output of 4,665,600 coins actually worth about $15,204.36 (gold, $7,602.18), and this, too, allowing 850 of the old cash to the Mexican dollar, the present rate of exchange. Thus it may be seen that the market price of the new coins—the price at which the people are forced to take them—and the actual value thereof do not agree by something like a difference of $25,366 Mexican (gold, $12,683) on a single day's mintage. It also shows the amounts being paid out by the people for which they get no return. It is not surprising, therefore, that the dumping of more than $4\frac{1}{2}$ millions of such coins upon the people every twenty-four hours should cause alarm, serious financial disturbances, and finally a determined boycott against the use of such coins.

COMPLEXITY OF THE SYSTEM INCREASED.

China's monetary system is highly complex at best, but the addition of this new species of token money has rendered the already intangible system almost impossible of comprehension. The Chinese themselves can scarcely fathom it at the present moment, so that when money changes hands each party to the transaction endeavors to keep back a few more "cash" than he is entitled to in order merely to be on the safe side. Disputes, quarrels, and even fights are of daily occurrence on account of the "bad" money. In a few instances the populace have shown their bitterness and indignation against those responsible for putting the new coins into circulation by engaging in open rioting and in two instances even attacking an official's yamen in their fury. One of their strongest complaints is that while they are virtually compelled to take the debased money in payment as wages or for services rendered, for their farm products, or for manufactured articles, yet the Government will not accept a "cash" of it in payment of taxes or revenues.

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MANCHURIA.

GROWTH OF NEWCHWANG.

DETAILS OF ANNUAL COMMERCE—PRINCIPAL ARTICLES IMPORTED.

Consul-General Sammons furnishes the following on the exports from and imports into Newchwang:

Some of the leading exports of Manchuria, such as raw silk, have found their way into foreign countries, including America. However, as a rule, such articles of Manchurian origin are exported through other ports into China, although, in some instances, being handled through the port of Newchwang. The Chinese have a well-known characteristic of seeking higher prices at the last possible place of barter. Hence such articles as bristles are carted from Mukden to Tientsin in the hope of obtaining a higher price than at Newchwang. At present, however, new commission houses and buying agencies are being established in Newchwang, and the variety as well as the quantity of articles exported is increasing. For the past year (1905) the chief exports from Newchwang were as follows:

Beans	$3,532,407	Hides, cow and buffalo	$6,777
Bean cakes	3,231,668	Shrimp skins	6,993
Silk and silk refuse	1,430,735	Hair, horse tails, etc	11,337
Bean and castor oil	1,032,850	Bristles	6,069
Ginseng and ginseng refuse	180,199	Pearl barley	7,758
Medicine	95,376	Provisions	4,603
Melon seeds	19,750	Millet	65,607
Prawns and shrimps, dried	64,097	Tobacco leaf	5,903
Deer horns	46,655	Wheat	12,466
Samshu	27,548	Sinews, cow and deer	4,430
Fish, dried and salt	30,576	Native cloth	5,693
Skins (furs)	83,116	Bones, cow and fish	3,047
Musk	8,809	Wool, sheep	3,254

The Manchurian exports for 1905 as compared with 1904 show an increase in castor oil of approximately $500,000. Ginseng shows a falling off of $23,000 as compared with the previous year. American ginseng to the value of $4,612 was imported, however. American ginseng brings $13 to $30 gold per pound in this market, or $1 to $2 per ounce, according to the quality and quantity of stock on hand. Native cultivated ginseng sells for from $2.20 to $13 per pound, while the wild Manchurian ginseng, such as is sent to the Emperor of China, is valued at from $650 to $800 gold per pound.

PRINCIPAL IMPORTS.

In addition to cotton goods staples there is a long list of articles that sell readily in Manchuria. Kerosene oil, flour, lumber, cigarettes, matches, blankets (just at present red woolen and cotton blankets, mostly from Japan, please the eye and open the purse of the average Manchurian Chinaman), sugar, coal, candles, beer, wine, plain clothing and cheap haberdashery, dyes, patent medicines, condensed milk and canned goods generally, tea, rice, soap, raw cotton, and

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oriental silks, old scrap iron, and galvanized iron roofing are among the articles imported. Also needles, indigo, enameled ware, and eggs. The latter were speculated in temporarily and at a loss during the late war. Galvanized-iron roofing was introduced largely on account of war-time exigencies. It is, however, becoming popular and may continue in demand. A list of the principal imports, together with the appraised value thereof, is as follows:

Shirtings	$737,030	Dyes and colors	$255,200
Sheetings	5,852,437	Pepper, black and white	39,366
Drills	2,654,395	Seaweed	48,893
Jeans	402,773	Lumber	558,429
Yarns	3,264,377	Medicines	442,656
Cotton goods:		Condensed milk	61,401
Italians, plain and figured	573,500	Indigo	101,303
Lastings, plain and figured	70,407	Enameled ware	74,822
Flannel	144,105	Needles	35,059
Blankets	171,141	Stationery	62,736
Blankets and rugs	46,717	Soap	101,886
Sugar	1,599,626	Tea	976,475
Kerosene oil	376,093	Carts and materials for	64,895
Cigarettes	813,529	Rice	858,187
Matches	282,829	Silk and piece goods	1,218,776
Flour	1,459,332	Iron and steel, new	217,118
Papers	763,503	Iron and steel, old	231,423
Hemp, straw, and cloth bags	226,140	Iron, galvanized	122,449
Clothings	138,661	Nankeen (native) cloth	7,644,080
Stores, marine and household	411,809	Cotton, raw	981,633
Wines, saké and occidental	43,681	Lohai paper (joss)	1,105,404
Candles	126,346	Iron pans (native)	116,900
Coal	183,237	Chinaware, coarse and fine	164,777
Beer and porter	119,823		

JAPANESE-MANCHURIA BALANCE OF TRADE.

Just prior to the Japanese-Chinese war in 1893 the former bought of Manchuria, through the port of Newchwang, products, mostly bean cake, to the value of $1,748,917, and in return sold to Manchuria goods to the value of $83,117. Ten years later Japan had increased its sales to $1,581,125, and during that year bought of Manchuria beans, bean cake, etc., to a total value of $5,810,555. That was the highest point reached in Japan's purchases in this new market.

In 1905, with conditions becoming more normal, it will be noted that the disparity in the balance of trade is disappearing, the returns showing Japan sold Manchuria goods to the value of $3,726,582, as against purchases from Machuria aggregating $4,510,205. It is believed that Japan, as an extensive purchaser of Manchurian beans and bean cakes, will ultimately establish reciprocal trade relations that will ramify into the business of the country until Japanese goods will come into sharp competition with certain lines of staples of American and British manufacture. As a general rule, however, in an open and unrestricted market the Chinese will get the most for their money, both in quality and quantity. At the international bargain counter of the Orient they may be relied upon, if not interfered with, to pick out (a) what is cheapest and (b) what insures the greatest value to them for the outlay. They are indefatigable and wide-awake bargain hunters and will take from any country's products what promises the best returns, barring, of course, something akin to a boycott or other abnormal trade restraints.

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THE CHINESE WILL DO THE BUSINESS.

As a general proposition it may be said that the Chinese business men will, under existing conditions, continue to transact the bulk of the business of Manchuria. This is, of course, assuming that they are allowed a free hand. Foreigners may bring capital or goods in unlimited quantities, but the Chinese will conduct the details of barter and trade with the consumer. Foreigners may cooperate or divide profits with them; they may operate through them, but, for the present, and with no prospect of material change in the near future, the Chinese business men of Manchuria will continue to do the business. As the Japanese population increases the scope of the Japanese business man will, of course, be enlarged.

With an estimated population of 20,000,000 to 30,000,000 in Manchuria, and with large areas of fertile lands yet to be taken up by Chinese from the overcrowded provinces of the vast Celestial Empire, with one man required to till an average of 5 acres, and a growing demand for foreign manufactured necessities, the Manchurian market promises to increase steadily in importance.

NOT A LAND OF GOLD, FURS, AND SILK.

Judging from inquiries some Americans imagine Manchuria to be a land fabulously rich in gold, fine furs, and silks of rare beauty, a land of unknown wealth now for the first time to be opened to the outside world as the result of the late war between Japan and Russia. Manchuria is a good farming country, to China proper a sort of American "out west," and equally as fertile in its extensive agricultural areas as the garden State of Iowa, supporting millions of Chinese, who have come from the overcrowded adjoining provinces. There are numerous good and some superbly beautiful furs, but prices now range high. The Manchurian or Korean tiger skin is probably the finest in the world. Such skins are scarce and cost a small fortune, however. Ten or twenty years ago a beautiful tiger skin might have been had for $25 or $50 gold, or even less. Now they cost five or six times that amount at Mukden, the fur center of this part of the world. Red and silver fox skins are also costly. A fur resembling sealskin sells for about 50 per cent the cost of real seal.

Gold mining has been carried on, in a small way, for many years in Manchuria. Scientific prospecting and examination by experts, however, will develop what of real or extensive value the district possesses, not only in gold but in other metals, including copper. In coal there are a number of good properties already sufficiently developed to establish their claim to permanent workable value.

Silks are freely imported into Manchuria. Raw silk, the product of the wild silk-worm industry of thrifty peasants, is exported.

TRADE REVIEWED.

LARGE INCREASE IN COMMERCE—UNITED STATES LEADS IN COTTON GOODS.

Consul-General Sammons has prepared a report reviewing trade operations in Manchuria which contains information showing that the United States has secured a firm footing in the sale of cotton goods and other classes of merchandise that is highly satisfactory, and which

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can be extended by continued persistence in the efforts now being made. In regard to the supply of cotton piece goods of certain classes the consul-general writes (all values are stated in gold dollars):

The commerce of Newchwang, the only open-door port in Manchuria during the calendar year 1905, amounted to over $53,000,000. Of this $8,353,718 is credited to the native customs-house, the returns from which were not made public prior to the Boxer uprising in 1900. Excluding the native customs—that is, business carried on between points in the Chinese Empire—the total commerce of Newchwang for 1905 was $44,939,889, or over $10,000,000 in excess of the previous year of greatest commercial activity—1899—when the total aggregated $34,817,486, not including the native customs business. The above figures do not include any part of the enormous Japanese army transport business of the port.

INCREASE IN AMERICAN IMPORTS.

Remarkable as are the increases in the total commerce of Newchwang, the increase shown in American imports is still more noteworthy, because, as a matter of fact, of a total of $22,605,435 of foreign imports fully 50 per cent is credited to the United States. Owing to the intricacies of shipping American goods via Japanese and Chinese ports, and through importers having headquarters elsewhere than at Newchwang, it is scarcely possible to trace with absolute accuracy the origin of all articles. Nevertheless, in cotton goods imports alone the United States advanced from $4,634,300 in 1903 and $4,355,807 in 1904 to $9,246,484 in 1905. In the one item of sheeting the United States was represented in 1905 by sales aggregating $5,677,805.

The imports of American, British, Chinese, and Japanese cotton cloth into Niuchwang for 1899, 1903, and 1905 are shown in the following summary:

	1899.	1903.	1905.
American	$4,397,120	$4,634,300	$9,246,484
British	63,826	392,179	680,748
Japanese	29,403	322,132	192,662
Chinese	616,841	4,413,406	7,644,080
Total	5,107,190	9,762,017	17,763,974

It is apparent, therefore, that the United States was not alone in increasing its imports, inasmuch as a total value of $7,644,080 of native (Chinese) cotton cloth found a market in Manchuria in 1905 as against $4,413,406 in 1903 and $616,841 in 1899, thus making a grand total for 1905, together with the imports from the British Empire and Japan, of $17,763,974.

INCREASING COTTON AND YARN IMPORTS.

Add to the above the aggregate cotton-yarn imports, and it will be seen that inasmuch as Newchwang's foreign and domestic yarn imports for 1905 were approximately $3,264,375, a total of $21,028,349 was

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represented by imported cotton products. The Newchwang cotton-yarn imports for 1899, 1903, and 1905 may be summarized as follows:

	1899.	1903.	1905.
British and Indian	$3,509,594	$2,298,220	$2,183,404
Japanese	717,179	513,185	972,838
Native	238,776	9,134	108,133
Total	4,465,549	2,820,539	3,264,375

At present the United States leads in cotton-cloth sales because of the superior quality of its products, coupled with the prudent management in marketing its goods. What participation it may seek or secure in the yarn trade of Manchuria remains for the future to develop.

With proper direction and a discontinuance of the irregular methods that hampered the manufacture of cotton goods in China at the outset, the native production may reasonably be expected to increase and also prove profitable. The idea which evidently possessed some of the Chinese at the outset, that the new cotton industry was to furnish rich picking for those interested in cornering the raw cotton market, in overweights and what not, resulted in a temporary check. This incubus has largely at least been now overcome.

AMERICA'S SUPERIOR COTTON CLOTH.

Newchwang being one of the ports of the world of much importance to manufacturers of American cotton goods, the question is frequently asked by what methods such products first entered this market. It is said by pioneer foreigners that when English manufacturers controlled the trade, thirty years or more ago, a very cheap Manchester cotton cloth was foisted upon the market. It was flimsy of texture and stiffened with sizing to give it an attractive appearance. Some of this class of goods, it is said, was very much damaged in transit, and was disappointing to consumers because it would not wear or stand washing. The American cotton cloth, firm of texture, strong and durable, suited to the rough usage of innumerable millions of Manchurian farmers, capable of keeping out the cold winds when wadded with cotton, and used for clothing during the severe winter months, and excellent for sails on thousands of river junks in summer, quickly came into favor once it was properly introduced.

POPULARITY WON BY MERIT.

The native (Chinese) cloth sells readily also, but the well-known 'Hua-Ch'i-Pu (pronounced something like whah-chee-boo and meaning "flowery flag cotton," or the cotton of the Stars and Stripes) sells on its merits and will continue to do so if unhampered with restrictive influences, boycotts, etc., or until the native is convinced that he can get greater value for his hard-earned cash by purchasing elsewhere. American cotton cloth stands hard wear. There are other cotton cloth novelties that temporarily attract the eye, but when put to the test of washing and wearing the Yankee cotton goods are given the stamp of

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popular approval all over Manchuria. Only the toughest cloth will withstand the severe strain to which the immense sails of Liao River junks are put. If these sails were designated by the flags of the countries where they were manufactured the Stars and Stripes would almost wholly predominate.

CHINESE COMPETITION.

In the manufacture of cotton goods, as in many other considerations, both peaceful and otherwise, the example of Japan is always and ever before China, and it is not, therefore, surprising to find the Chinese captains of industry preparing to enter whatever commercial fields that promise a profitable return. These captains of industry have ample capital, and, in that respect, they usually have an advantage over the Japanese promoter of business enterprises. The leading Chinese are more anxious to obtain simple devices for the manufacture of cotton goods and the spinning of cotton yarn than they are to further build up foreign imports of such goods. They, too, are more interested in obtaining machinery for manufacturing silk than in shipping the raw article elsewhere. Again, they are thinking of the day when Manchuria will produce the wheat and the flour as well to supply this market.

SPINNING PLANT TO BE INSTALLED.

But for the present no radical change may be expected. An experimental cotton-yarn spinning plant is to be installed this year in Newchwang by one of the most progressive of the Chinese captains of industry in Manchuria, and if it meets with success the venture will, very naturally, be undertaken by others, with the ultimate result, no doubt, that one after another various industries will be introduced. This will not, even if wholly the case in an ultra optimistic sense considered as a future possibility, materially change fixed channels of trade and commerce in this market. For the time being prevailing conditions of demand and supply will remain unchanged.

A COMPARISON OF IMPORTS.

A detailed comparison of the American, British, and Japanese imports for 1905 with 1904 brings out the fact that the sales of English shirtings, both white and gray, have increased; that Japanese sheeting advanced from $3,993 to $125,505; that American drills increased enormously, and that on account of the advances in English shirtings that country has now taken the lead from America. Below are a few of the increases in sales of the three nations for 1905 as compared with 1904:

Articles.	American.	British.	Japanese.
Sheetings	$2,944,950	$11,632	$121,512
Shirtings	2,507	168,929	13,675
Drills	1,770,659	51,671	20,526
Jeans	135,740	Decrease.	None.
Cotton flannel	36,828	Decrease.	1,296

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The principal imports from America, the British Empire, and Japan during 1905 were as follows:

Articles.	American.	Japanese.	British.
Shirtings, gray, plain	$186,785	$15,443	$190,967
Sheetings, gray, plain	5,677,806	125,505	25,535
Shirtings, white, plain	5,075	.....	249,281
Drills	2,951,798	29,149	68,647
Jeans	295,610	.....	63,666
White Irish	.....	.....	35,927
T cloth	.....	6,380	2,198
Cotton cloth	.....	7,906	.....
Coton flannel	129,412	7,370	4,529
Cotton crape	.....	909	.....
Cotton blankets	.....	103,458	.....
Handkerchiefs	.....	3,515	.....
Towels	.....	41,451	.....
Yarns	.....	972,838	2,183,405
Copper ingots	.....	423	.....
Wheat flour	538,587	.....	.....
Ginseng	4,612	.....	.....
Matches	.....	274,837	.....
Kerosene oil	326,875	.....	.....
Cigarettes	313,882	.....	.....
Lumber	191,889	.....	.....
Wine	.....	13,075	.....
Tea	.....	4,122	.....
Aniseed, star	.....	2,000	.....
Mats of all kinds	.....	7,976	.....

AMERICAN GOODS.

While the total foreign commerce of Newchwang, amounting to $53,293,607 gold for 1905, was approximately $10,000,000 gold in excess of the previous banner year of 1899, the total registered tonnage of 1,182,032 tons, not including the junk tonnage of 600,000 tons, was not materially heavier than that employed in other years to move cargoes worth less. Higher prices of bean cake and other merchandise increased values without adding to the carrying capacity required.

America's share in the foreign imports for 1905 were important, being 50 per cent of the whole, which approximated $22,000,000 gold. Of this over $9,000,000 gold is represented by cotton goods, and yet not a pound of the products of American cotton mills comes direct to Newchwang or in American bottoms. Although American flour, lumber, and kerosene oil were shipped direct to Newchwang from ports of the United States, no cargoes were available in return.

JAPANESE COMMERCIAL EXHIBIT AT MUDKEN.

While there has been considerable discussion here among merchants of all nationalities regarding a Japanese commercial exhibit or exposition at Mukden, under the auspices of business men of Tokyo, Osaka, Kyoto, and Nogogo, nothing of a definite or authentic nature is forthcoming. It is understood the business centers of Japan will contribute to the exhibit, and that it will remain open during May, June, and July next. The Japanese consul here states that he has no official information on the subject.

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JAPAN.

ADVANCE IN FOREIGN TRADE.

RAPID COMMERCIAL AND INDUSTRIAL DEVELOPMENT OF ISLANDS.

The following paragraphs are taken from reports furnished by United States consular officers and special agents:

The wonderful changes which have taken place in recent years in Japan have astonished the civilized world. For centuries Japan was noted for the isolating policies of her rulers. The opening up of trade relations with Europe and America have been followed in the little Kingdom by a most successful era. It is beginning to take a high place among the leading commercial and industrial countries. Japan proper consists of five large and nearly 4,000 small islands. The area is estimated at 147,645 square miles (exclusive of Formosa 13,458 square miles, and the Pescadores 85 square miles), and the population is approximately 47,000,000.

The islands of Japan are of volcanic origin. Earthquakes occur frequently and many cities have been destroyed or partially destroyed through this agency. The country is of moderate elevation, although mountains are numerous. Its valleys are fertile and its coast is indented with magnificent harbors. Japan is rich in mineral wealth, and teems with every variety of agricultural produce. The soil is extremely fertile and produces not only the vegetation of the Tropics, but that of the temperate and frigid zones. Agriculture is the chief occupation of the Japanese. They raise tea, cotton, rice, wheat, maize, potatoes, beans, and tobacco. They are careful farmers, and their farms are models of order and neatness.

The mercantile marine has been considerably increased, largely by purchase from abroad, since the beginning of 1904. On December 31, 1904, Japan owned 1,209 steamers of 789,494 tons, and 3,523 sailing vessels of 321,034 tons. On September 30, 1905, the number of steamers had increased to 1,360 and the tonnage to 927,457, and the sailing vessels had increased to 3,598 and the tonnage to 324,307. The increase in steamers was 151 and sailing vessels 75, of 137,763 and 3,273 tons, respectively. There were also added to Japan's marines 43 ships of 121,260 tons captured during the last twenty months.

Although the Government and private yards were very busy during 1905 in repairing, docking, and refitting war and merchant ships for war purposes, some of the leading shipyards report increased output, and the total for the country is greater than that of 1904.

FOREIGN TRADE.

The foreign trade for the year 1905 amounted to $405,028,501, against $345,310,817 for the year 1904. The imports were $244,261,635, an increase of $58,581,266 over those of 1904; exports $160,766,866, an increase of $1,136,418 over the exports of 1904—an increase in the total trade of 1905 of $59,717,684. The growth of Japan's trade during the past ten years has been remarkable. In 1896 the total trade amounted to $144,758,617, and in 1905 the trade was $405,028,501, an increase during the decade of $260,269,884. Japan is

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a buying as well as a selling nation. In 1896 the excess of imports over exports amounted to $26,915,851, and in 1905 the excess of imports was $83,335,500. During the decade 1896 to 1905 Japan bought $286,562,000 worth of goods more than she sold.

The following tables show the imports into and the exports from Japan for the years 1904 and 1905:

IMPORTS.

Articles.	1904.	1905.	Articles.	1904.	1905.
Breadstuffs: Wheat flour.	$4,812,699	$4,975,684	Iron and steel—Cont'd.		
Cotton, and manufactures of:			Rails	$848,459	$471,816
			All other	4,602,638	9,385,849
Raw	36,710,193	55,311,591	Leather and manufactures of	2,182,483	7,026,206
Mousseline de laine	909,275	1,533,184	Oil, kerosene	9,100,745	6,030,631
Prints and shirtings	1,776,966	4,815,823	Oil cake	2,334,275	5,690,233
Satins and velvets	475,061	1,432,006	Paper	1,512,666	3,168,702
Yarns	171,645	850,933	Rice	29,895,955	23,982,159
Flax, hemp, etc	1,131,127	1,679,126	Sugar	11,521,504	6,853,094
Indigo, dry	1,058,834	1,164,869	Vegetables: Beans, etc	4,312,423	5,297,651
Iron and steel, manufactures of:			Vessels, steam	4,654,846	3,890,147
Bar and rod	2,150,753	3,548,832	Wool, and manufactures of:		
Locomotives, cars, etc	1,603,709	2,188,453	Raw	4,985,527	4,173,786
Machines and engines	4,941,375	10,026,206	Cloth	872,127	5,439,654
Nails	980,027	1,304,364	All other articles	51,479,269	73,022,707
Pipes and tubes	655,878	1,068,449	Total	185,680,369	244,261,635

EXPORTS.

Articles.	1904.	1905.	Articles.	1904.	1905.
Camphor	$1,584,099	$1,283,117	Silk, and manufactures of:		
Cigarettes	1,256,424	1,546,066			
Copper	6,453,887	8,024,226	Raw	$44,370,351	$35,921,877
Cotton, manufactures of:			Waste, etc	2,795,365	3,116,583
Tissues	3,871,215	5,746,041	Handkerchiefs	2,349,796	2,446,305
Yarns	14,634,228	16,623,231	Tissues—		
Fish (cuttle)	1,333,065	1,078,914	Habutæ	18,773,049	14,028,990
Lacquered ware	511,647	617,010	Kaiki	224,530	307,262
Matches	4,881,930	5,180,382	Straw plaits	2,582,806	1,913,554
Mats and matting	2,458,629	2,543,494	Tea	6,419,417	5,292,162
Mushrooms, dried	651,613	518,475	Towels	687,101	804,043
Oil (fish)	383,177	370,429	Umbrellas, European	691,237	791,399
Porcelain and earthenware	1,936,511	2,662,162	Wax, vegetable	551,498	402,149
Rice	2,362,430	1,563,494	All other articles	37,243,191	47,210,803
Seaweeds	623,252	774,698	Total	159,630,448	160,766,866

NIPPON'S PUSH.

NEW FACTORY ENTERPRISES WHICH WILL NEED MACHINERY.

Consul-General Henry B. Miller sends from Yokohama a report on new industrial enterprises in Japan, as follows:

Some important developments are about to be made with the aid of foreign capital in the timber and glass industries in Japan. A concern has been formed with a capital of $475,000 gold, which will carry on the lumber and sawmill business in Japan, three or four mills being established in different parts of the country. The principal branch of this business will be the export trade, and Canadian engineers will be in charge of the newest and best machinery, to be driven by electricity. The capital is furnished by French, English, and Japanese capi-

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talists, and all the shares are taken by the promoters. The capital of the big glass undertaking is $750,000, furnished by French, Belgian, English, and Japanese capitalists, also taken by the promoters and fully paid up. The factory will be at Osaka. The technical engineers, foremen, and many of the workmen will be French and Belgian. Both syndicates, which are represented in Japan by R. Loonen, had their origin or conception in Paris.

The Fuji Paper Mill Company proposes to erect a new mill in the Hokkaido and to introduce great improvements in the existing mill at the base of Mount Fuji. The cost of these improvements is estimated at $775,000, and the cost of the new mill at $161,000. For this purpose debentures will be issued to the amount of $1,000,000, with interest at the rate of 5.7 per cent per annum, to be redeemed in fifteen years. This issue will be undertaken by the Japan Credit Mobilier (Limited). The company further proposes to increase its capital from $1,650,000 to $2,300,000.

Abe Rinyemon, a merchant in Tokyo, who recently returned from a tour in Manchuria, has established the Manchuria and Korea Salt Company, with a capital of $250,000, to manufacture salt on the coast at Pitzewo and Pulantien.

INDUSTRIAL CONCERNS MULTIPLYING.

Various new companies and extensions, involving a large outlay of capital, are about to be launched, and the following figures are of interest: Capital required for companies being promoted to supply water power for electric-motor power, estimated at $35,700,000; for new electric light and railway companies and for extension purposes, $9,825,000, of which $3,850,000 will be supplied from abroad; for extension of spinning mills, $16,275,000. Municipal enterprises in many cities involve an outlay of $12,610,000. New mining companies are also being floated. Their aggregate capital amounts to $17,600,000, of which $8,850,000 is to be raised by foreign loans. New railway and shipbuilding enterprises represent the sum of $25,092,000.

The imports of machinery at Kobe amounted in 1905 to $5,148,000, or over three times the value imported in 1904. Of all machines lathes made the highest increase, amounting to $1,240,000. Next follow machines for metal and woodwork, spinning, and electric-light plant, locomotives and electric motors. Each of these various lines showed an increase of over $250,000 on the figures for 1904.

Imports continue to increase, and the value of machinery imported during January last amounted to $515,800 against $330,600 for January last year. Almost every steamer arriving in Kobe from Europe has had consignments of machinery on board.

HARD WOOD.

GROWING DEMAND—OPENING FOR AMERICANS.

Consul Sharp believes that there is no reason why hard woods from the United States and its possessions could not find a good market in that part of Japan if efforts were made to meet the requirements of the trade. He writes:

The Japanese importations of teak wood from Siam and Dutch India were, for 1905, $368,466, against $73,445 in 1904, most of which was

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entered at Kobe. This gives an idea of the growing demands for hard woods for vessels, buildings, and the manufacture of furniture. Teak logs arrive here in 17 to 45 foot lengths. Teak planks of 15 to 25 feet in length are 8 inches wide, 4 inches thick, and up, smallest size, while the 20-foot or more lengths are 12 to 20 inches wide and 2¼ to 6 inches thick, those 30 feet long running as high as 7½ inches thick. They are required to be without worm holes or cracks. Teak deck planks must, likewise, be sound, and run from 20 to 30 feet long, 5 to 5½ by 2½ to 3⅝ inches.

CREAM SEPARATORS.

CHANCE FOR AMERICAN MACHINES.

During 1905 the prefecture of Kobe alone produced 283,537 gallons of milk, valued at $96,778, or more than double the quantity five years ago. The first cattle exhibition was held in Kobe in December last, when several fine Holsteins were shown. The farmers keep 2 to 5 cows, but only milk and butter are sold, no attempt being made to manufacture cheese. The separator which has had the monopoly of this market so far is a small hand one from Denmark, of a capacity of from 13 to 28 gallons per hour, and suitable for a dairy of 4 to 5 cows. The wholesale prices of these machines, delivered at Hamburg, Antwerp, or English ports, are $32.50 and $36.25 for 13 and 17 gallon capacity, respectively, and $40 and $47.50 for the 22 and 28 gallon machines. There is no reason why an American machine, pushed by an energetic agent, should not find a good market in Japan.

FISHING INDUSTRY.

AMERICAN MODERN MACHINERY MUCH NEEDED.

Edward Julian King, American consular agent at Hakodate, sends a report on the manufacture of fish oil and fish manure in his consular district, where he thinks American machinery for such purposes can be sold to good advantage. He writes:

During the fishing season, which lasts from the end of March to the end of November, a lookout is kept at all hours of the day and night, from stations on shore and from boats at sea, for the shoals of herring and other fish which form the raw material from which the manure and oil are obtained. After the fish are captured and the nets hauled up on the beach the fish are thrown into inclosures alongside of a number of iron try pots, which are about 4½ feet in diameter and 2½ feet deep and erected on brick fireplaces, and in these the fish are first boiled. After boiling they are put into wooden presses about 3 feet square and 2½ feet deep, the sides and bottom of which are composed of slats having a small opening between them. The cover is put on and pressure is then exerted on top by means of levers or stones put on top of the cover, the oil and water pressed from the fish running into a tank, where the water, going to the bottom, is first drawn off and the oil afterwards put into old kerosene cans, soldered up, and is then ready for shipment.

The fish, after being pressed, is in the shape of a hard sodden mass, and this is removed from the press, broken into small pieces, and

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spread out on mats in the sun and dried. When dry it is packed in straw mats and shipped. It is estimated that not more than 60 per cent of the oil is extracted from the fish, while in drying the manure, more than half of the phosphates, the most valuable part, are lost by evaporation and from escaping into the ground.

CHANCE TO SELL MODERN MACHINERY.

The oil is nearly all exported to Holland and England, but the manure is all used in Japan, and the amount annually produced is not sufficient to supply the demand. In view of these conditions, American citizens can benefit in two ways, as follows:

First. By the introduction and the sale of American machinery, such as hydraulic presses of the kind used by the fish-manure manufacturers on the Atlantic coast. The machine that would sell best should be light and portable so as to enable it to be shifted from station to station.

Second. By the erection of fishing stations on the Pacific coast, especially in southeastern Alaska, and in exporting the fish manure to this country. The offal in all the large salmon canneries, such as heads, entrails, etc., will also work up into manure.

The price of fish manure in Japan is from $40 to $75 United States gold per ton, according to the supply. At present the price in Hakodate is from $58 to $63 per ton of 2,240 pounds, according to the quality. There is no import duty, and intending exporters can therefore easily figure the margin of profit. The price will most probably fall this year, as the war with Russia having ended the supply from Saghalen, which has not been in the market for two years, will again be present this year; yet it is pretty certain that the price will never be under $40 gold per ton.

MERCHANT MARINE.

SHIPYARD ACTIVITY—MATERIALS PURCHASED IN EUROPE.

Consul Charles B. Harris, of Nagasaki, reports to the Bureau of Navigation through the Department of State interesting facts in regard to the active upbuilding of Japan's national and merchant marine, and furnishes figures showing the operations of the Mitsu Bishi Dockyard for 1905. The consul writes:

The year 1905 was to the Mitsu Bishi Dockyard and Engine Works at Nagasaki very prosperous, the increased work in building and docking of ships necessitating extension of facilities of the plant and the employment of over 7,000 workmen daily throughout the year. The dock can easily accommodate the largest of war and merchant vessels, and for their increasing business at their branch at Kobe a floating dock was built and launched as an entirety and towed to that port. The contracts made during the year for the building of merchant vessels include two ships each of 13,500 tons gross for the Toyo Kisen Kaisha, to run on their San Francisco-Hongkong line, which will be fitted with turbine engines. The war vessels contracted for have been at different times made the subject of special reports from this consulate.

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I again call attention of American manufacturers to the fact that this company retains a buyer in London and another in Glasgow, who make, occasionally, visits to the United States, but when giving orders, even for American goods, place them in Great Britain. Direct solicitation for orders, with proper prices and good goods, would probably result in a portion of their trade going direct to our people. The Mitsu Bishi Dockyard and Engine Works are the most extensive and notable works of this character in Asia. They are thoroughly progressive and up-to-date.

Included in the work of construction during 1905 was that of six steel steamships, with a gross aggregate tonnage of 13,989 tons and 14,193 horsepower. The work in hand at the end of the year consisted of eight steel vessels, with a total gross tonnage of 40,494 tons, exclusive of vessels for the Japanese navy.

STRAITS SETTLEMENTS.

GROWING DEMAND FOR MODERN PLOWS.

PLANTATION NEEDS ON THE MALAY PENINSULA—TYPE OF MACHINES WANTED.

Consul-General Wilber, of Singapore, writes about the demand for plows in the Malay Peninsula, as follows:

A very heavy plow is required for turning up stumps and for laying over a furrow of 8 inches deep and 2 or 3 feet wide, and a light plow for other conditions requiring only a 6 to 10 inch furrow. The former object is attained in the Hawaiian sugar plantations by the use of two suitable plowing traction engines equipped with winding drums and automatic coiling gear, moving parallel to one another at a distance of from 500 to 1,200 feet apart, and each alternately hauling a large double-ended plow toward itself, the one not in operation paying out its rope or cable whilst moving forward for its return haul of the plow. An English firm has supplied those islands with numbers of these machines. I think, however, that there are steam plow makers in America who can accomplish the same thing satisfactorily with only one engine, and that dragging a heavy disk or other pattern plow behind it.

DISK PLOWS DESIRED.

As to the smaller plow required, it is believed that a single or light double-revolving disk plow with cleaners will fill the bill. The manufacturer must consider, however, that the motive power will not be a horse but a mud buffalo, or a team of them. These are very strong, but move more slowly than does a horse. The point at which power is brought to bear upon the plow will be practically the same as when using a horse. The buffalo stands about 4½ to 5 feet high. The strain of the load comes on his neck, which bears the yoke. The point where this strain is transmitted to the plow is about 2 feet from the ground. The soil is not very hard nor very soft.

This type of plow, very light, to dig a 4 to 6 inch furrow with two, three, or four disks, should be very servicable on rice fields just after

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the first rains but before the floods. A single disk, or a light double disk, should be very serviceable in turning over ladang, a tall deep-rooted grass that overgrows clearings, and is a pest here on tapioca, rubber, and coffee estates. The rubber estates are nearly all in the hands of the Europeans. The sale of this class of goods would not be affected by the Chinese boycott.

SIAM.

TRADE OPPORTUNITIES.

ARTICLES THAT MAY BE SENT FROM THE UNITED STATES.

Mr. David Banks Sickles, of New York, formerly diplomatic representative of the United States in Siam, furnished the Department of State with the following list of articles that may be profitably sent from the United States to Siam:

Aerated waters.
Albums.
Ale.
Almonds.
American buggies.
American drills.
Arrowroot.
Agricultural implements.
Bacon.
Baking powders.
Barley.
Beer.
Benzine.
Biscuit.
Bitters.
Blotting pads.
Blacking.
Book lappets.
Boots and shoes.
Brass chains.
Brimstone.
Butter.
Cambrics.
Candles.
Canned meats.
Canned preserves.
Canned fish, asst.
Canned vegetables.
Canvas.
California wines.
Carpenters' tools.
Cement.
Churns.
Checked fancy muslins.
Cheese.
Cigar holders.
Chintzes.
Chlorodyne.
Chocolate.
Cholera medicines.
Chromos.
Clothes wringers.
Colored piece goods.
Cocoa.
Confectionery (in bottles).
Copying presses.
Cotton and silk umbrellas.
Clocks.
Croquet sets.
Drugs.
Dyed long cloths.
Dyed cambrics.
Earth closets.
Earthenware, assorted.
Electro-magnetic machines.
Essences.
Fancy ornaments.
Fancy soaps.
Figured shirtings.
Figured long cloths.
Filters.
Fine rhubarbs.
Fishhooks.
Firearms.
Flint stone.
Flour.
Games.
Gelatin.
Gray shirtings.
Gray cotton twist.
Glassware.
Gunlocks.
Gum arabic.
Hams.
Hand fire engines.
Harness.
Hardware (all kinds).
Household drapery generally.
Household utensils.
Hydropults.
Ice machines.
Imperial red and blue twist.
Inkstands.
Iron bedsteads.
Iron.
Ink.
Iron chains.
Isinglass.
Jaconet.
Jams.
Jellies.
Jewelry.
Kerosene.
Kitchen utensils.
Knitting machines.
Knives and forks.
Ladies' cloth.
Lamps, assorted.
Lard.
Lead.
Letter paper.
Linen.
Long ells.
Looking glasses.
Machinery, small.
Masons' tools.
Matches.
Medicines.
Meerschaum pipes (imitation).
Merinos (assorted colors).
Molasses.
Milk (in tins).
Mosquito netting.
Music boxes.
Musical instruments.
Mucilage.
Muskets.
Nautical instruments.
Napkins.
Patent medicines.
Patent leather.
Pens.
Perfumery.
Pickles.
Pictures.
Pistols.
Pianos.
Photographs.
Potatoes.
Plain and figured velvets.
Plated ware.
Prints.
Pumps.
Quicksilver.
Quinine.
Refrigerators.
Red twist.
Rice hullers.
Rice machines.
Saddlery.
Saleratus.
Sauces (in bottles).
Saws.
Seeds.
Sewing machines.
Ship chandlery.
Shot.
Soda crackers.
Soda.
Student lamps.
Spelter.
Spirits.
Stationery.
Steam fire engines.
Steel.
Straw hats.
Sugar mills.
Table cutlery.
Thermometers.
Towels.
Toys.
Trunks.
Turkey red cloth.
Turkey red twist.
Varnish.
Vinegar.
Watering pots.
Watches.
Washing machines.
White and gray long cloths.
White cambrics.
White jaconets.
White mandapollans.
White shirtings.
Whips.
White twist.
Whisky.
Wire netting.
Woolen goods.
Yankee notions (general assortment).

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ASIA MINOR.

RIGID INSPECTION OF SOAP.

STRICT TURKISH GOVERNMENT REGULATIONS—IMPORTATIONS HELD UP.

Consul Thomas H. Norton reports that the provincial authorities at Smyrna have just received circular instructions from the ministry of the interior regarding the amount of foreign matter permissible in the manufacture of soaps.

According to the new regulations, which are based upon a report received from the faculty of the Imperial College of Medicine, the maximum percentage of solids (salt, soda, and earthy matters) allowed is 2 per cent and of water 4 per cent. Soaps in which these percentages are exceeded are regarded as adulterated, and the manufacturers are liable to prosecution. The manufacture of soaps containing sodium silicate is likewise forbidden.

These regulations are of importance to all concerned with the importation of soaps into Turkey, as merchants selling wares coming within the above prohibition are also liable to prosecution for the sale of an adulterated article. No slight degree of trouble has been caused of late years to importers of soap into Turkey on account of the rigid requirements in regard to the chemical analysis of the wares before they are liberated from the customs. Three consignments of well-known brands of English soap were held for a long period, on the ground that the percentage of caustic soda exceeded one-half of 1 per cent and that talc was present.

Turkey produces most of the common grades of soap required for ordinary consumption, but there is a considerable importation of the finer qualities, chiefly from Great Britain and France, and to some extent also from Italy and Germany. These importations at Smyrna reach an annual figure of about 315 tons. There is a large exportation from this section of cheap grades of soap made from olive oil, in which American purchasers are taking a steadily increasing share. An important market for this exportation has just been closed by the recent decree of the Bulgarian Government shutting out the soaps of this region on the ground that they are manufactured from materials of foreign origin.

ARABIA.

TOBACCO IMPORTS.

OPENING FOR AMERICAN PRODUCT—MANNER OF USING.

Consul William W. Masterson, writing from Aden on the subject of tobacco, says:

There is one luxury universally indulged in in this country—the use of tobacco, and it is not confined to any particular age, sex, or caste, but, to a greater or less extent, almost everyone uses it in some form. The native does not know anything about the seductive form

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of chewing tobacco that is prepared in America, and I have never seen any of our manufactured chewing tobacco in this market, but the chewing of tobacco in its native state is indulged in to some extent, though by far the greater amount of tobacco is used in smoking and in snuff.

The smoking of cigars and cigarettes is not in common practice among the native people, but either the stoneware pipe with a rather short stem, or the hooka, or hubble-bubble, is used. This latter pipe is arranged with a stand, with a clay receptacle for the tobacco on the top, and the smoke is drawn through a reservoir of water with a long rubber or wrapped hose of several feet in length by the smoker, and the peculiar noise the smoke makes as it is being drawn through the water gives the name of "hubble-bubble" to the pipe. These large pipes are commonly used in the houses of the more well-to-do, and frequently there are several stems to one of these large pipes, and the smokers sit around in a circle and take their turn at the one stem or the several stems, each passing it on to his neighbor for a short smoke.

Snuff is not used as it is with us, although you occasionally see a snuffer, but the snuff is ordinarily made into a pill of about the size of a robin's egg and is placed between the lower front lip and the teeth. This manner of using snuff is common among the laboring class, and almost every cooly that is met in the street has his lower lip puffed out by a ball of snuff behind it. Snuff is prepared in this market out of the ordinary powdered tobacco, unrefined sugar, and potash.

EXPORT OF CIGARETTES.

Owing to the fact that Aden is a free port of entry the manufacture of Turkish or Egyptian cigarettes for export has grown into quite large proportions, and as the duty on tobacco is high in Hodeidah, which is in Turkish territory, this place has become the distributing center of tobacco throughout southern Arabia.

There were 60,532 pounds of manufactured tobacco imported into Aden last year, and practically all of this was in the form of either cigarettes or cigars. Of this amount 12,376 pounds came from the United States, and 12,656 came from England. Both of these two items were of cigarettes partly made of tobacco grown in the United States, and the remainder of cigars from India, Straits Settlements, and other Asiatic tobacco-growing countries.

DEMAND FOR UNMANUFACTURED TOBACCO.

The principal business in tobacco here, and the one that is of importance to our dealers, is the importation of unmanufactured tobacco. This tobacco comes in round bales weighing each some three or four hundred pounds.

There were 7,699,706 pounds of unmanufactured tobacco imported into Aden last year, at a cost of $467,827. Of this amount 4,480 pounds came from Italy, 2,800 from Abyssinia, 18,956 from the Persian Gulf country, 78,988 came from Greece, 153,384 from Turkey in Europe, 248,948 from Asia Minor, 2,033,262 came from neighboring Arab ports, and 5,052,236 came from India. Practically all of the tobacco received from Italy, Greece, Turkey in Europe, and Asia Minor was imported for the manufacture of Egyptian cigarettes, to be used by the local European inhabitants, sold to passing steamers, and for export trade. The balance, imported from the neighboring Arab ports and India, is used only by the native people of the country.

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Prices run from several dollars per pound for cigarette tobacco, down to several cents a pound for the commonest Indian. Whether the tobacco we raise in America would be suited to the taste of these people is a matter for conjecture, but there is a considerable market here, and on the surface I can not see why our tobacco dealers should not get a share of it.

FOODSTUFFS AT ADEN.

AMERICAN FLOUR TOO EXPENSIVE—IMPORTS FROM INDIA.

Consul Masterson says that as every bit of the food supplied to man and beast there must be imported, one of the largest items of import is that of grain and flour.

There were 25,120 hundredweight of wheat imported last year, and during the same time there was also imported 504,183 hundredweight of rice, 997,369 hundredweight of jawari, and 19,413,412 hundredweight of flour. And of these total imports practically all came from India, except 150,224 hundredweight of flour, of the best quality, which came from the European countries of Russia, Austria, and France. Nearly all of these provisions were consumed in Aden, as the natives in the interior supply their own food.

THE CLIMATE A DISADVANTAGE.

One tremendous handicap in the importation of provisions into this place is their deterioration within a short time owing to the heat and humidity, and so grain under the best conditions continues good for about six months. A merchant is exceptionally lucky who can keep flour on hand in a good condition for over two months. All of the grain and Indian flour imported is in bags, of 156 pounds to the bag, while the European flour is generally received in casks. The jawari is a grain of the corn variety, and is very much like the kaffir corn of our country. This is fed to horses and cattle. A considerable portion of that imported is also ground into flour and used by the poorer class, who can not afford the use of wheat flour or rice. The wheat flour sells in the market at $4.22 to $4.54 per bag of 156 pounds, according to quality. Of course there is flour selling here at prices above and below those figures, but the prices given are for average flour in the bag.

TRIAL OF AMERICAN FLOUR.

Some six or seven years ago, during the prevalence of the great famine in India, there was a considerable quantity of flour imported into Aden from America, but at a very much greater figure than that of the Indian product, as this American flour was sold at $7.46 to $7.79 a cask of 2 hundredweight. Owing to the long distance traveled and the heat in the hold of the ships, it deteriorated much sooner than the Indian flour. But since the famine in India no American flour has been imported into Aden, and none likely will be again until another famine comes or until the American flour can be sold in the market at a cheaper figure than the quantity imported several years ago.

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The American flour imported on that occasion was the very best flour of a well-known firm, but I think the mistake was then made of trying to sell high-priced flour to people who had always been used to a common article at a cheap figure. Since that time when American flour is mentioned to a native merchant he throws up his hands in despair and says it is no use in trying to import American flour; it costs too much, and the common people can not afford to buy it. It must be remembered that the great majority of people use the flour of wheat or jawari ground only, and not too well at that, and some of it is but indifferently sifted. The bread from this is made only in flat cakes. American flour sold for the making of such bread must be sold for less than $8 per barrel to compete with flour needed for such common food.

SOAP SUBSTITUTE USED.

The reason for the small imports of soap into Aden are that the natives use a strong alkali substitute called "hootum."

This native alkali or potash is derived from an evergreen shrub growing plentifully on the desert and called "shagar" by the Arabs. It is burned and the residue ash is incorporated with black mud into lumps. This is dissolved in water and is used so strong that clothes washed therein and beaten on stones last but a few washings. The prevailing use of this alkali explains why only 3,854 pounds of soap were imported into Aden last year, nearly all of it from France. By educating the people to the use of good, low-priced soap an excellent trade should result, for the Orientals are a cleanly people.

USE OF CANDLES.

Consul Masterson further writes that 131,676 pounds of candles were imported into that Arabian city last year, mainly from France. Not a candle came from the United States, which leads the consul to suggest that Americans could secure some of this trade. The most popular size is 6 inches long and weighs 1½ ounces, 8 to the package, and 100 packets to the box. The best brand retails at $9 per box, other grades at $7 and $6.50. The wholesale importers of candles at Aden are Livierato Freres, Caracanda Freres, Menahem Messa, Mazzucchelli and Perera, Cesar Tian, and Societa Coloniale Italiana. Letters sent to any of these firms by our manufacturers may result in some business.

PERSIA.

CARAVANS STILL USED.

COMMERCE SMALL AND LARGELY CONTROLLED BY RUSSIA.

Mr. Richmond Pearson, minister at Teheran, in transmitting a report recently published by the Persian minister of customs, showing the commerce of the Kingdom for the year ended March 21, 1905, writes as follows:

As compared with the previous year the figures show a falling off of about 13 per cent, owing to the prevalence of the cholera in Persia

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and the state of war between Russia and Japan. In spite of the war, Russia still holds first place in the trade relations with Persia, sending one-half of the imports and receiving nearly two-thirds of the exports during the year in question. It may be said that Russia and Great Britain together practically monopolize the trade with Persia, standing for four-fifths of the imports and two-thirds of the exports.

DIFFICULT INGRESS TO THE COUNTRY.

The influence of Russia is predominant, not only because of her geographical position but because by almost prohibitive transit duties and by liberal export bounties to her manufacturers she effectively shuts out foreign trade with Persia, except by way of the Persian Gulf, from which transportation into the interior is extremely difficult and costly, owing to the wretched roads. The caravan road or rather track from Shiraz to Bushire, the chief port on the Persian Gulf, is obstructed by a series of kotals, or steep transverse rocky ridges, which make the route impracticable even for camels. No beasts of burden are equal to this arduous task except mules specially trained for this service. Thus transportation, the prime factor in commerce, is impeded by the laws of nature in the south and by the laws of Russian in the north, and remains practically the same as it was in Biblical times. With no modern facilities for communicating with the outside world, Persian commerce can not make much progress. If the commercial statistics are reliable the balance of trade is persistently against Persia, and has been from a remote past.

AMERICA'S SMALL SHARE.

According to the figures for the fiscal year 1905, the trade of the United States with Persia is insignificant. The only item among the imports into Persia from the United States in excess of $100,000 is silver bullion, and that stands for nine-tenths of our total exports to Persia in the year named. The most important export from Persia to the United States consists of woolen carpets, valued at 38,078 tomans, equivalent to about $30,000. This may be true as to the direct shipments from Persia to New York, but it is certain than ten or twenty times that amount of Persian carpets made from wool and silk were shipped to New York through Constantinople. These carpets and rugs are manufactured in all parts of Persia, each city or province having its distinctive colors and designs, which are easily recognized. They are nearly all made by hand in the homes. The only important firm engaged in the manufacture of carpets is that of Zeigler & Co., of Suttanabad, who do a large export business, and have evidently made large profits. They buy the wool and dye stuffs, furnish the looms, employ thousands of weavers, and sell the output on their own terms in London, Paris, Berlin, and St. Petersburg. It seems strange that this firm should have remained for so long without competition in such a profitable field.

More than one-half of the imports into Persia consist of cotton goods, sugar, and petroleum, while fruits, fish, opium, carpets, rice, raw cotton, and silk in cocoons constitute two-thirds of the exports.

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OCEANIA.

COMMONWEALTH OF AUSTRALIA.

SYNOPSIS OF THE ACT REGULATING COMMERCE.

DESCRIPTION COMPULSORY ON DIETARY ARTICLES—PREFERENTIAL FOR CANADA—AMERICAN GOODS.

Consul-General John P. Bray, of Melbourne, furnishes the following synopsis of the commerce act passed by the parliament of Australia, which will become effective June 8:

Under this act it is compulsory to attach a trade description to certain articles either on importation or exportation, the articles being articles used for food or drink by man or used in the manufacture or preparation of articles used for food or drink by man; medicines and medicinal preparations; manures; jewelry, and seeds and plants.

Compulsory description is not required in regard to any other classes of goods than those mentioned above; but if any description is applied to any goods the law requires that it shall be a correct one. The minister of trade and customs, who has charge of the administration of the act, is now engaged in drafting the regulations in regard to the compulsory description of goods, and has indicated that certain principles will be considered in framing these regulations and which may be summarized as follows:

Articles of food or drink.—Such a description shall be affixed to these as will accurately and completely describe the exact nature of their composition, the source of origin, and method of manufacture. Thus the term "whisky" shall only be applied to whisky made from pure malt only, and "brandy" to be pure grape spirit. Other spirituous liquors must have a description showing of what they really consist and giving the exact nature of their ingredients.

Medicines and medical preparations.—These shall bear a description showing their exact nature and contents. Any preparation containing opium, or any ingredient having a similar effect to opium on the human constitution, must be so described.

Manures.—The precise chemical ingredients of these and proportion of each must be accurately given.

Apparel, including boots and shoes.—A description shall be given showing of what ingredients the article is made and the proportions of material used.

Jewelry.—All jewelry, which is taken to include imitation jewelry, or articles to be worn for ornament as jewelry, must have an indication upon it showing the exact proportion of precious metal used in its composition. If it does not show a British hall-mark showing its quality, there must be stamped upon it or connected with it such mark

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as may be prescribed, indicating what is the exact proportion of precious metals used in its manufacture. Precious stones and articles of that nature, when set or otherwise, must be accompanied by a written or printed description of their names and qualities.

Seeds and plants.—All packets of seeds must have on them a label showing what the seeds are, where grown, and the year in which produced. Plants must have horticultural labels attached to them showing what they are and where produced.

As to any article which admits of it, the description must be stamped indelibly upon it or worked or woven into it in legible characters, and in a prominent place on the article, so as to readily catch the eye. Where the article does not admit of stamping labels shall be used. Such labels, when practicable, shall be printed in legible characters and placed in a prominent position on the article. In cases where this can not be done, the labels must be in some material not easily destroyed, and shall be secured to the article in an effective manner.

IMPORTS FROM CANADA FAVORED.

The minister of customs has made the decision that the practice to be followed in determining free-on-board values of goods imported to Australia from the United States and Canada is—

Goods imported from Canada via Vancouver shall be treated for duty purposes as if shipped from New York, i. e., duty on freight charges will be reckoned only on charges from place of manufacture to nearest border station en route to New York. Goods imported to Australia from New York via Vancouver, freight charges from New York to the Canadian border only will be included in the value of the goods for duty. Goods imported from Canada via New York or other United States ports, inland freight from factory to nearest Canadian border station only will be included in value for duty. Goods imported from the United States via New York or other ports (including Pacific ports), inland freight from factory to port of shipment will be included in value for duty.

This decision would seem to favor the Canadian railways and the Vancouver-Australian line of steamers, the latter being subsidized by the governments of Australia and Canada.

PROFIT FROM CHINESE BOYCOTT.

One of the largest exporters of flour in Australia in giving evidence before the Australian Shipping Commission made the following statements of interest in regard to the Australian trade with the East:

Since last July my firm has exported 90,000 bags of flour to the East, and we could have sent more had better shipping facilities been available. The Chinese boycott on American flour has contributed to the success of Australian trade in the East. The E. and A. Company, the China Navigation Company, and Norrddeutscher Lloyd, which are the shipping companies carrying cargo to the East, all formerly charged 15s. ($3.65) per ton of 2,000 pounds, while the ton for other ports of the world is calculated at 2,240 pounds. The freight has been raised to 16s. 6d. ($4.01) per ton, less a rebate of 10 per cent, but the rebate is not allowed unless shipments are restricted to these lines. I am quite sure that a combine has existed for some time, but I doubt whether the German joined it until last year. The freight is to be raised from June 1 to 17s. 6d. ($4.25) per ton, with the usual rebate, and this will affect our trade with the East very adversely.

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OBJECTION TO PURCHASING AMERICAN GOODS.

Much enthusiasm concerning Australian goods has been aroused by this exposition and it has been decided to make a similar display each year. The following remarks of His Excellency Sir Reginald Talbot, the governor of the State of Victoria, may be of interest as showing his objection to Australians purchasing American goods in preference to those of British make:

I hold it to be the very best form of trade preference for those who live in a country to support the interests of that country by purchasing the goods produced therein, and by destroying the silly prejudice that contends that because a thing is grown or made under our noses it is not so good as something that came from a long way off. Whilst I wish preference for Victorian or Australian goods to be the first consideration, I would like Australians afterwards to give the mother country's goods the preference over the goods of other nations. I have noticed on countless occasions that goods which could be produced here, and were produced in England, have been passed over and set aside by people, who bought, instead, American or German goods; not because the latter were better, but because the Americans and Germans were more pushing in getting their goods sold. Anyone in this state, I think, should say "I will not buy anything that is not Australian, providing what is Australian is cheap enough and good enough;" and when in retail trade goods were put before them that were made in America or Germany, they should ask before buying, "Haven't you the same article from England?" If everyone would do that they would establish good preferential trade without legislation or any pressure from without. I hope to see the day when all will live on that principle. It would strengthen the bond of union with England, and would enable Englishmen to show the world at large a united Empire.

AN EXHIBITION OF MANUFACTURES AND PRODUCTS.

The consul-general tells of an exposition of Australian manufactures and products which recently closed in Melbourne after being open for four weeks. It was attended by 400,000 visitors and realized about $15,000 as a net profit. This exposition was confined strictly to the manufactures, products, and art of Australia, and was organized and controlled by the Australian Natives Association.

The exhibits were creditable and comprised articles of clothing, agricultural implements and machinery, artificial manures, vehicles, furniture, metal work, iron and steel from Australian ores, etc. The governments of the State of Western Australia, South Australia, Queensland, and Victoria sent comprehensive exhibits illustrating the products and resources of those States. One of the most interesting features of the exposition was a collection of the natural products of the northern territory of Australia, included in the South Australian exhibit, and consisting of rubber, cotton, kapok, rice, dholl, logwood, arrowroot, zam bean starch, etc.

NEW SOUTH WALES.

PROVINCIAL ENTERPRISE—GREAT WEALTH FROM SOIL.

Consul F. W. Goding makes a report on the prosperous primary industries of New South Wales. He writes from Newcastle:

A government estimate on the value of products of this State for 1905 shows the following results: Pastoral industry, $82,500,000; agricultural, $32,500,000; dairying, $17,500,000; mining, $34,000,000, and forestry and fisheries, $4,500,000. To this the $51,250,000 value of

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manufactures should be added, making a total of $222,250,000 in wealth produced, or $150 per head of population. Taking the number of adults engaged in the primary industries at 200,000, the wonderful earning power of $875 per head is attained. The annual trade of the State reaches the total of $330,000,000, or $220 per head, an average nearly double that of any other country in the world. The staple industries are continuing to progress in productiveness, with Government aid to immigration and agricultural settlement. Of nearly 20,000,000 acres of arable land barely a tenth is cultivated. The great wool clip and the increase of the sheep flock to nearly 40,000,000, with the fine grain and dairying prospects, indicate an era of prosperity for New South Wales. The population now is 1,496,050, a four-fold increase since 1861.

PROGRESS IN IRRIGATION.

Irrigation is being extended in New South Wales, 9,400 acres having been brought under cultivation thereby at Mildura, most of the blocks not exceeding 10 acres, and rarely 50 and 60 acres. This district is in a country which, previous to irrigation, was considered worthless, but now a ton of raisins or currants are produced per acre, bringing $100 to $150 revenue. The water used is pumped 60 feet high, some of it being lifted three times, and is supplied through 170 miles of channeling. With this accomplishment under adverse circumstances it is considered a certainty that when the waters of Murrumbidgee, Murray, and Lachlan rivers are utilized by gravity the extended droughts will be overcome and the immense flocks and herds that now roam nearly barren country easily fed.

TOBACCO MONOPOLIES.

PROFITS FROM GOVERNMENTAL OPERATIONS.

Consul Goding also furnishes interesting facts in regard to results of the tobacco monopolies as operated by various countries and by the tobacco trust in Australia. They were secured by a tobacco commission appointed by the New South Wales government, in Australia, and are as follows:

Country.	Revenue per pound.	Revenue per capita.	Average wages per hour.	Average wholesale price per pound.	Average price per pound, local leaf.
France	$0.75½	$1.64	$0.04	$1.00	$0.07
Austria	.32	.89	.03 3/10	.54½	.05
Italy	.90½	.....	.03	1.12	(a)
Australia	.64 1/10	1.69½	.12½	1.32½	.10½

a Unknown.

Last year the revenue derived from tobacco in Australia was $7,000,000, with a population of about 4,000,000. There are now six factories as against nine before the formation of the combine, the increase in operatives being 12 per cent with an increase of wages. Where women are employed they receive the same wages as men.

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MARBLE DEPOSITS.

ABUNDANT AND VARIEGATED.

Consul O. H. Baker, writing from Sydney, says that the marble deposits in New South Wales are the "finest in the world." He tells of the various quarries, some of which are easily worked, without any use of mechanical appliances, giving large-sized blocks of a good quality. He asserts that the deposits of varigated marble in New South Wales are among the finest in the world, and if properly worked and developed should give the means of livelihood to thousands of workers in quarrying, carting, working the material, etc., not only for local consumption but for exportation, as is now being done with American marbles, which are keenly competing throughout the Commonwealth with the Italian. Unfortunately for the industry he says the quarries are now being worked by bodies of men who have not the funds available to open these quarries and keep on hand a sufficient number of blocks of marble to meet a sudden demand, or the properties belong to men who are too extensively occupied in other directions to allow of their devoting any time to developing this industry which, if properly worked, would give a better return than many a gold mine. The men are working without the necessary appliances, and they have too much unsuitable machinery, without the expert knowledge of the needs and requirements of the market, and with great ignorance as to the purposes to which marble can be applied.

TASMANIA.

IRONMONGERY FROM UNITED STATES.

The correspondent at Sydney, Australia, of London Commercial Intelligence, sends the following:

At a recent sitting of the Federal Shipping Commission in Tasmania, one of the witnesses, an ironmongery importer, stated that in some cases his firm purchased goods in America rather than in England, because the difference in freight was more than sufficient to counterbalance the difference in cost price. In other words, where the prices were the same, or nearly so, the freight became the deciding element in making a purchase, and as freights were lower from America than from England, his firm bought largely from American houses. This course he found necessary, even where the quality of the goods was the same and the English prices appreciably lower.

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AFRICA.

NORTH AFRICA.

THE MOROCCO SULTANATE.

PRESENT OPPORTUNITIES FOR AMERICAN BUSINESS.

Consul-General Hoffman Philip, of Tangier, in response to letters received from this country, writes as follows in regard to opportunities that are offered for extending business with Morocco:

It is to be regretted that there are not more merchants here, in touch with the United States, having a knowledge of American business methods and the advantages to be derived therefrom, who might seriously take up the importation of American products into this country, etc. Unfortunately, there are no American houses yet firmly established here, and the representatives of European firms in Morocco generally lack knowledge of American business affairs, and are principally interested in the imports and exports from and to their various countries.

MARKET FOR AMERICAN PRODUCTS.

Morocco is an exceedingly fertile country with a large native and a fast growing European population dependent upon outside sources for many of their daily necessities, which is at present confined to the coast towns. It is but a question of time before the whole of this rich territory will become open to foreign enterprise, and those countries which have established firm trade relations during the transient period will benefit most largely. Many American products can without doubt be sold in large quantities cheaper than the same articles of European manufacture, and it is to these things that attention must first be directed in order to get the best results from this undeveloped market. I speak of business opportunities under the existing state of trade relations only. Some kind of direct communication between the two countries would prove the basis of a most desirable and lasting trade.

OPENING FOR COMMERCE.

Consul-General Philip further reports that his correspondence with American manufacturers indicates a growing desire to participate in the Moroccan trade, and writes:

For opening up this commerce several exporting houses could unite in sending a man who talks Spanish, or American naturalized citizens

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now residing at Tangier could be secured, who are well qualified to undertake agencies for American products, and who have good banking references. The best time for such efforts is the present. Good freighting facilities are offered from New York to Morocco. Phelps Brothers, of Bowling Green, New York City, who are operating a line of steamers from New York to the Mediterranean, recently assured me that they would undertake to call at the port of Tangier direct from New York whenever guaranteed sufficient freight. Undoubtedly similar arrangements could be made for an occasional stop on the return journey to New York. Morocco is at present undeveloped, commercially or otherwise, and live Americans with full lines of samples, etc., should be able to build up an excellent trade.

EGYPT.

MERCANTILE NEEDS.

The British consul at Alexandria, Egypt, finds many commercial opportunities there for the sale of foreign manufactures, among which he mentions:

A reliable watch retailing from $5 to $10 would find a ready market among the natives if properly advertised. It should be plainly stamped with the name of the country where manufactured.

Rubber tires for carriages are now in great demand, retailing at $1.70 per kilo (2.2 pounds) and upward. Owing to the injurious effects of the sun renewals must be comparatively frequent.

Modern houses are now frequently fitted with fireplaces, thus creating a demand for mantels and fire fronts. A good trade is done in portable stoves, but British ones are absent. There is also a handy and economical American cooking stove on the market.

The choice of saddlery is limited, there being only a couple of shops where it can be bought. At one of these the minimum price for a saddle, bit, and bridle is $16, at another $20.

SOUTH AFRICA.

A PREFERENCE THAT HAS NOT MET ITS PURPOSE.

The British and South African Export Gazette expresses dissatisfaction with the course of British trade in the South African colonies. It says:

Under the existing customs union tariff goods are imported into South Africa in five classes, as follows: Those admitted (1) at special rates; (2) at mixed rates of 12½ and 25 per cent ad valorem; (3) at 2½ per cent ad valorem; (4) at 10 per cent ad valorem; and (5) those admitted free. The 10 per cent class is that embodying the general bulk of goods, i. e., those not enumerated or implied in the tariff. In respect of the classes subject to ad valorem rates, a rebate is allowed

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in regard to goods of British origin to the extent of 25 per cent of the duty, except in Class III, where the ad valorem rate of 2½ per cent is wholly remitted. In other ad valorem classes the British rate becomes 7½ per cent instead of 10 per cent, 8⅜ per cent instead of 12½ per cent, and 18¾ per cent instead of 25 per cent. As to special rates no rebate is allowed except where there is, in addition, an ad valorem rate, as, for instance, on ale and beer, spirits, wine, cigars, and cigarettes, while in the free list no distinction is made between British and foreign goods. This arrangement has been in force since August 15, 1903. Unfortunately, it has been only too conclusively proved that the preference has not had the desired effect. Months ago we pointed out that in all but one of the classes under which the preference clause is available for the benefit of British goods the United Kingdom's share in the trade had nevertheless materially fallen.

MADAGASCAR.

GROWTH OF COMMERCE—IMPORTS OF COTTON CLOTHS.

Consul William H. Hunt makes a report from Tamatave on the foreign trade of Madagascar, compiled from a newspaper of that French island colony. It follows:

During the first eleven months of 1905 the general foreign trade of Madagascar reached the sum total of $9,700,588, an increase of $1,585,606 over the same period of 1904. The greatest increase was in the imports, which advanced $996,885, while the exports were $588,721 greater. The total value of imports in the period named was $5,646,176. Aside from flour, table claret, and worked metals, all articles of foreign purchase were bought in much larger proportion than in the previous year. Cotton cloth imports alone advanced 80 per cent. The comparative eleven months' importations for the two years in question were:

Products.	1904.	1905.	Products.	1904.	1905.
Flour	$203,123	$191,008	Divers compositions	$106,818	$130,217
Wines	379,845	342,233	Metals	41,501	64,016
Beer	40,519	49,775	Cloths	1,379,771	2,493,525
Brandies	114,515	123,099	Worked metals	389,796	348,750
Chemicals	41,501	52,258	Trifles	54,990	88,172

The largest item of export from Madagascar is gold dust, which decreased in value from $1,362,209 in the first eleven months of 1904 to $1,232,509 in the 1905 period. Rubber exports advanced from $700,107 to $823,647; hides, from $419,024 to $665,657; raffia, from $380,274 to $431,567; beeswax, from $129,484 to $190,445; vanilla, from $25,203 to $78,678; and rice, from $11,931 to $35,543. Timber exports decreased from $67,257 to $40,730.

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SOUTH AMERICA.

REPUBLIC OF URUGUAY.

OPPORTUNITIES FOR LIVE EXPORTERS.

AMERICAN TRADE SUCCESSES WHERE PERSONAL EFFORTS WERE MADE.

Consul John W. O'Hara writes from Montevideo that so much has already been said by American consuls about prevailing conditions and market opportunities in South America, yet every mail from the United States brings inquiries from exporters, manufacturers, and dealers, as to general conditions and markets, business methods, and general requirements of trade, etc. The consul continues:

It may be truthfully said that no city in South America has a greater percentage of substantial business men than Montevideo, the capital of Uruguay. They not only have ample financial responsibility, but they also have well-earned reputations for honesty and integrity that they take great pride in maintaining. It is a matter of current history that in 1890, when it was feared that this Government, standing alone among the Republics of South America on a solid financial basis, would be forced to follow the lead of the other countries and sanction the use of a depreciated money, the responsible business men of the country came to the rescue. Capitalists, bankers, exporters, importers, wholesale and retail dealers, and business men generally, to the number of more than five hundred, pledged themselves to sustain the system that had been so long an honor to the country and its credit. With this moral and financial support the affairs of the Government proceeded as they had for a half century; it continued to pay all its obligations in the currency in which they were contracted, and as a result it stands before the world to-day with an unblemished financial reputation and with unlimited credit. It is a comparatively easy matter to ascertain the financial standing of the individual dealer of this city or country through some reliable commercial agency when that is required; so that there is no good reason for the complaints usually urged by the American manufacturer or exporter that he does not know the financial standing of these people.

American articles, when properly presented, find a ready market here, and particularly is this true if such articles are up to the usual standard of style and quality. This is not, however, a good dumping ground for inferior, old-style articles. In the matter of wearing apparel, house furnishings, jewelry, and novelties of all kinds, the people of this country are fairly up to date. They receive the latest Paris fashions of the milliner and the tailor, and dress elegantly and in good taste. They buy the latest designs to be had in the market, and do not hesitate to pay a good price for a good article. But the

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merchants do complain, and sometimes justly, that they are unable to do business with American houses; first, because these houses will not take the same care in packing merchandise that is customary with European houses; second, the goods sent are not such as indicated in the sample or catalogue, and third, they are unable to make satisfactory arrangements as to credits and banking.

AMERICAN GOODS DAMAGED IN TRANSIT.

As to the first objection assigned (improper packing) there is no longer any excuse for lack of information concerning this important prerequisite to the proper delivery of merchandise in South American ports. Perishable articles of all classes that are subject to injury from dampness in transit, or from repeated and rough handling, should be so packed as to assure safe arrival at their destination; if this can not be done they had better not be shipped at all. If they are improperly packed and damaged in consequence, the merchant may be the loser in the first instance; but the shipper, and after him the manufacturer, are the ultimate losers in the loss of market. I have made it my business to go along the wharves and among the warehouses and examine boxes containing goods shipped from different countries. I found the goods from European countries almost universally well packed, in strong boxes made of good, heavy lumber, each box thoroughly reenforced and securely bound at the ends with strap-iron bands, and I do not now recall having seen a broken or damaged case from a European port.

I also examined many cases from New York and other American cities, and found in most instances that these goods were neatly and securely cased and that they would safely pass any ordinary usage, but I must confess that I did find some broken cases, some boxes made of thin lumber of a poor quality, without proper strapping, and merchandise of an ordinarily high standard in a very much injured condition. While there were but few instances of this kind, it must be remembered that it requires no great effort to maintain a reputation for wrong doing when once established; and particularly is this true when there is an opponent in the same business, watching every mistake you make and ready and willing to advertise that mistake to your detriment. A few days ago I was called to the business establishment of a prominent importer and shown some furniture that the firm had recently received from Buffalo, N. Y. This consignment, which was a trial order, consisted of four handsome mahogany rocking chairs. There was not an unbroken chair in the lot, and some were so damaged as to be almost beyond repair. They had either been very carelessly and inefficiently packed or almost criminally handled in transit.

AMERICAN BICYCLE TRADE RECEIVES A BLOW.

As to the second objection, that goods sold are not equal to the sample shown, I would not charge the American manufacturer entirely with this responsibility. Many times goods of American manufacturers are sold to buyers in foreign countries or to jobbing exporters who, when they are unable to sell them in the market for which they were originally intended, ship them to a new market after they are out of style, shelf worn, and generally damaged. For this the manu-

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facturer is not to blame. But if a reputable American house manufactures and places in the hands of a foreign salesman an article bearing his brand, and the salesman puts that article on the market, on the reputation of the manufacturer, as a first-class article, then the manufacturer is not blameless if the article is not as represented and he not only injures his own business, but contributes to the injury of others, as the manufacturer, and not the agent, will be held responsible for the wrong done, and the foreign buyer, with a little effort, may charge this to the manufacturers of the country generally. An instance of this kind occurred in this city a few years ago, and resulted in almost driving the American bicycle from this market, where it had had the lead.

BANKING AND CREDIT ADVANTAGES.

As to the third specification of objection it is only necessary to add that all European houses grant from three to six months' time. It is true that they secure the legal rate of interest on their time drafts, which they make secure in every instance. The business people are accustomed to doing business in this way and they are not satisfied to depart from the usual methods. It is also true that nearly all the European countries have banking houses located here, through which they make their collections and conduct their general business. This is a great assistance in securing trade and making collections. The majority of the European manufacturers and importers doing business in this section of South America also have local agencies and branch distributing houses, managed by people interested in the home company. This interest is usually of a substantial nature. These agents are given ample powers and are supposed to assume responsibilities. Arrangements of this character enable the local people to adjust satisfactorily any difference that may arise in relation to merchandise, and that without prejudice to the country or the products.

It is my opinion that it would be both practical and profitable for American manufacturers and exporters to have established American banking houses in South America, with branches in every prominent city. This would not only be profitable but it would inspire confidence in the responsibility of their institutions. Then, I am sure that it would be a source of great profit and convenience to buyers and sellers alike to have large distributing agencies in this country, conducted on American business principles by practical American salesmen. Such establishments located in this city would be able to extend our trade up the river into the interior, as this city, on account of its location, is destined to be the general point for reshipment and interior distribution as soon as the port works, now progressing rapidly, are completed.

EPISODES OF AMERICAN PUSH AND SUCCESS.

A few examples will better suffice to illustrate what may be accomplished by personal representatives when important negotiations are to be conducted. A few months ago, when the Government of this country made an appropriation of $3,000,000 for the construction of roads and bridges and other internal improvements, I was informed, when I began an investigation of the matter, that it would be very difficult for American manufacturers of bridges and road-making machinery to convince the people of this country that their products

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were equal to the products of European manufacturers, and yet the largest and almost the only contract so far let under this law was awarded to the United States Steel Products Export Company, of New York, for the construction of some twenty bridges, varying in length from 20 to 60 meters. Recently the public school corporation of this city purchased something more than three thousand desks from an American manufacturing company. These are the first American bridges and the first American school desks ever purchased by the people of this Republic. These two contracts were secured because the American manufacturer of the products in question had live, energetic men on the ground to look after the work personally.

Walter Miller, of Indiana, a young man scarcely more than 22 years of age, for the past three years has been engaged in the business of importing breeding animals into Argentina from the United States. This young man has personally conducted this business. He came into this country as a stranger to the people and the language, and yet he has gone about in such a manner as to make a reputation for himself and has been the means of placing the American breeding animal in the front rank of the thoroughbreds of this country. These results could not have been achieved except by a personal campaign.

A TRADE WORTH SEEKING.

The Uruguayan people are remarkably easy to do business with. They are genial and hospitable, but they like to have the same attention given them that is shown to other buyers. They want to meet and get acquainted with dealers or manufacturers, or with some representative of the person with whom they are dealing. It is more satisfactory to seller and buyer alike. The foreign commerce of this country amounted in 1904 to $62,000,000. The imports were $22,000,000 and the exports $40,000,000. The commerce of the United States with this country in the same year was slightly more than $4,000,000. They sold us $2,066,000 worth of their products, while we sold them $2,050,000 worth. This statement does not, however, include products brought into this port from the interior and shipped to America, which amount to, perhaps, $2,000,000 more. With proper attention this trade may be greatly increased. The field is new and growing rapidly. The people are prosperous and anxious to buy, and they are especially friendly to Americans; they will be glad to see the manufacturer or his representative agent when they come.

LOCAL HOUSES WANT CREDIT.

Consul O'Hara, reporting on the best methods of extending the trade of Uruguay, especially with the United States, says:

There are four prime requisites for the fullest development of trade with Uruguay, viz: Improved steamship service, preferably under the American flag, banks, branch mercantile houses, and the granting of larger credits to the merchants. The fulfilling of even one of these requirements would result in a great increase of business with Uruguay. Native merchants who are inclined to buy from the United States are discouraged in their efforts by the difficulty of communication and of obtaining credits, and feel that their trade is not wanted.

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Many business men, who have a high commercial rating, refuse to do business with American houses, as they can obtain better terms in Europe. An American mercantile agency, the R. G. Dun & Co., have established branches in the principal centers of this section of South America, and through that means ample and reliable reports may be obtained of the financial standing of merchants and importers, and therefore avoid delays.

PERU.

THE INSTALLMENT PLAN

SUCCESSFULLY INTRODUCED—VALUABLE HINTS FOR MANUFACTURERS.

Consul-General A. L. M. Gottschalk writes from Callao that the sale in Peru of certain special lines of goods on the American installment plan offers inducements that should encourage American manufacturers to establish agencies in that country for the sale of sewing machines, typewriters, etc., through the cooperative plans so successfully carried out in the United States. The consul-general in the following report describes what has been already done in this direction by some of our enterprising manufacturers:

Some years back—about 1899 or 1900—a salesman for an European firm of watches and chronometers appeared here and offered to dispose of a comparatively large stock of watches on monthly payments, the purchaser's watch being kept in order, regulated, etc., at the vendor's expense until full payment had been made for it—a period of several months. The idea was new here and people rapidly became interested, and the traveler's stock, I am told, was speedily exhausted. He was not long in finding imitators, and one after another, in an incredibly short space of time, various companies were formed for the sale—at high prices but in small installments—of furniture, kitchen and table ware, and other household goods.

These firms were known locally as "cooperativas," the idea being that the vendor and the purchaser "cooperated" to secure the goods from the manufacturers or importers, who of course demand cash or short-time payment. The idea spread like wildfire, incredible numbers of such businesses—many of them possessing but insufficient capital—came into existence, and all sorts and classes of articles from household goods to store fittings, and even provisions, were sold "cooperatively" in this manner. With the competition thus generated the various "cooperativas" began to offer premiums in the shape of lotteries, each purchaser receiving a numbered ticket, and one out of every ten getting his goods free through the weekly drawings, etc.; and after many people had thus been induced to order much more than they could pay for, complaints of all sorts began to be heard. The "cooperativas" thereupon fell into disrepute and to-day are but very little resorted to, except by the poorest class of people.

PRACTICAL ILLUSTRATIONS.

That the installment business, if carried on under the proper auspices and by means of legitimate business methods, has a future here, seems

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to have been proven by a new departure recently inaugurated in Lima by one of the large sewing-machine companies of the United States. Until a few months ago this concern's sewing machines had been fairly successfully handled by one of the large commission houses of Lima, which imported a number of machines yearly and sold them outright to retail customers or to local middlemen; but the sewing machine company believed that more could be done. Their suggestion that an installment department be opened and that their goods be sold by the same methods as have made their success in the United States being disregarded by their agents here (the commission house in question), they promptly withdrew the agency, and sending out a special representative, established an agency on propressive and modern lines in Lima, which appears to be making successful installment sales throughout Peru.

Similarly, another line of American goods recently introduced into Peru—the American cash registers—has been extremely successful, a number of the registers having been placed in prominent retail stores in Lima and several provincial cities. These machines are being successfully sold here now on the installment plan.

ARTICLES THAT WOULD SELL.

I am somewhat surprised that certain other lines of American manufactured goods—typewriters, pianos, phonographs, automobiles, etc.—are not similarly handled in this part of Spanish-America. The articles are popular, and many people of financial responsibility but of moderate means could be induced to purchase them if facilities were available other than ordering through a commission house, and after months of waiting having to make a large cash outlay for an article which once out of repair costs no end of time and trouble to have put in order. Particularly true is this of the typewriter business in Peru. Of the three or four makes in use here only one is available on time payments, and that through a local middleman at a prohibitive price. These machines are rarely satisfactorily repaired, and only a very trifling discount is allowed the purchaser of a new machine in return for his old one. These methods are the diametrical opposites of those which have made the prosperity of the typewriter business in the United States.

TRADE WITH UNITED STATES.

EXPENSIVE FREIGHT ROUTES—CASH-WITH-ORDER SYSTEM.

Consul-General Gottschalk transmits valuable informanation on fostering American trade relations with Peru. He says:

The United States suffers in the Peruvian market from a disadvantage which extends to the relations with all the countries of the west coast of South America; that is, expensive and lengthy freight routes, or such as embody hazardous transshipments at the Isthmus of Panama. American packing, which is notably deficient as compared with that of European markets, makes the importation of certain kinds of American goods into Peru almost a game of chance. American manufacturers have not as a class yet reached that experience which studies a foreign market or caters carefully to its tastes. Over two-thirds of

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the communications from American manufacturers which reach this office are based upon an evident desire not to cultivate substantial trade relations with a new foreign market, but simply to "dump" an overproduction upon some chance customer.

CREDIT SYSTEMS.

The American system of credits is far from being anything so liberal as that of the older markets of the world when dealing with foreign customers, especially those of South America. As an example: There were shipped to this consulate by the Department of State on August 14, 1905, certain supplies by the Isthmian route, which is usually considered shorter than via the Straits of Magellan. On December 20, or five months and six days later, the articles were still on the way. What would be the result of the American "cash with order" method, or the result of a 60 or 90 day credit upon an order thus sent to a Peruvian customer? Clearly that customer would, to all intents and purposes, be paying for his goods in advance, when he could obtain similar merchandise from a European market on terms of four months' credit.

VENEZUELA.

CONCESSIONS GRANTED.

VALUABLE CONTRACTS GIVEN TO CITIZENS OF THE COUNTRY.

Consul E. H. Plumacher forwards from Maracaibo English copies of a 25-year contract made by the Venezuelan Government with José Antonio Bueno, a citizen of that country, in regard to the asphalt mines in the Federal district "Delta Amacuro." According to this contract the parties who hold the concession will be obliged to pay to the National Government the sum of 4 bolivars (bolivar, 19.3 cents American) for each ton exported, besides the Government taxes. The contractor is allowed the exemption of customs duties for only one time on all the machinery and implements needed for exploiting and exporting the asphalt.

Consul Plumacher also sends a copy of the contract made between the minister of fomento and Dr. M. M. Ponte, of Caracas, which gives to Mr. Ponte and his party the sole right to explore and elaborate all fibrous plants like "La Cocuisa," "El Cocuy," and the Sanseveria and others found upon Government land for the next fifteen years.

Dr. Antonio P. Mora, a citizen of Maracaibo, has secured a fifteen-year franchise from the Venezuelan Government for the manufacture of nutritious oils and oleomargarine. The free importation is allowed once only for machinery, materials, and all articles needed for factories and offices. Free importation is also allowed of empty bags and boxes for the product. Doctor Mora may establish several factories under the concession.

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CHILE.

CLOSER RELATIONS.

SPECIAL COMMISSIONER TO VISIT UNITED STATES.

Mr. John Hicks, United States minister to Chile, notifies the Department of State that Mr. Edward C. Spencer, an American citizen, has been authorized by the President of Chile to proceed to the United States to make known the advantages of Chile in the way of commerce, mining, manufacturing, and agriculture. Mr. Spencer has resided in Chile for about forty years and is well equipped for the work assigned him. He will go first to Europe for a few weeks, and will subsequently visit New York, Philadelphia, Washington, Chicago, and other cities. The mining prospects, nitrate fields, and other industries will receive Mr. Spencer's special attention. Mr. Hicks writes:

Mr. Spencer realizes fully one great necessity for American trade in Chile—the desideratum that I have repeatedly spoken about—and that is a better system of steamship connections with this country. Everyone knows, who is at all familiar with existing conditions, that American trade in Chile can not advance rapidly without better steamship connections.

I was recently informed by a leading grocer—an Englishman—that early in January he had cabled to New York for 50 cases of canned asparagus, to be shipped at once by way of Panama, but, although three months had elapsed, nothing had been heard of the shipment. He remarked that it was almost impossible to do business with American houses on account of the extreme difficulty of shipments. Mr. Spencer will endeavor to make this point clear in his efforts to increase American interest in Chilean trade.

THE BUDGET.

SUBSIDY FOR FAST STEAMSHIPS.

Minister Hicks writes further that with a view of securing better steamship connection with the United States there has been inserted in the Chilean budget for the current year an item of 250,000 pesos ($95,000) for the subvention of a line of fast steamers between Valparaiso and Panama. The line will make bimonthly trips, and steamers will make only one or two stops between Chile and the Isthmus. Chile is already paying a large annual subsidy to the South American Steamship Company (Chilean) and the Pacific Steam Navigation Company (British), and this new step indicates an earnest desire to secure better communication with the United States. Mr. Hicks continues:

Americans should realize the urgent necessity of improving the steamship service between the United States and the west coast of South America. It seems unfortunate that almost the entire trade of this region should be in the hands of Europeans, and that American products should be largely crowded out by those of Italy, Germany,

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France, and Great Britain. Chile is a rich and prosperous country and its consumption of goods manufactured abroad is enormous, yet the trade is almost entirely in the hands of the Europeans. As an example, plans and specifications for a new building for the chamber of commerce at Valparaiso have been accepted from an architect in Rome. Then an engineer from Holland is making a survey of the harbor of Valparaiso, where the Chilean Government expects to spend some $10,000,000 in building docks and improving the anchorage ground. American contractors failed to secure the contract for building the Arica-La Paz Railroad, a piece of work to cost $10,000,000, which goes to a Chilean syndicate, backed by Germans or Englishmen.

The unfavorable influences of the lack of steamship connections with America are apparent. Goods come from Europe, and the products of Chile are shipped to Europe with the promptness and facility that govern communications between New York and the interior of the United States. For generations the Chilean people have looked to Europe for their literature, religion, clothing, fashions, and articles of everyday use. When they need anything not produced at home they naturally look to Europe for it, and the fact that rapid communication exists—agents for European houses are on the ground, and banking facilities with the Old World are easily accessible—makes it easy to keep up connections with European houses. If it is desirable to open up this country to American enterprise, I believe the first essential to be better connections by steamers.

NITRATE OF SODA.

PROPOSED LIMIT TO PRODUCTION.

Consul Charles S. Winans writes from Iquique, Chile, concerning the controversy that has been going on there for several months as to whether or not the producers of nitrate of soda would again enter into an agreement to limit its production. He says that the question has been settled in the affirmative, and adds:

At the meeting of the producers and promoters on March 31 some concessions were made on both sides. It was then agreed that should 96 per cent of the producers concur by April 3 in forming a new combination on an estimated producing capacity of 3,800,000 tons per year for all of the 147 manufacturing plants a new agreement would be entered into. At the meeting of April 3 it was found that 99½ per cent were ready to concur. The prospect of having 3,800,000 tons of nitrate thrown on the market during the next twelve months, while there is no prospect that more than 2,000,000 tons will be consumed during the same period, together with the fear that the Chilean Government would legislate against those not entering the combination, was more than the manufacturers were willing to risk.

The terms of the new combination are for three years, dating from April 1, 1906, on a basis of a possible producing capacity of all of the "oficinas" of 3,800,000 tons yearly, each "oficina" to submit to a pro rata reduction in its producing capacity to conform to the consumption of the previous year. The production for the next twelve months will probably be cut down to 2,000,000 tons.

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COLOMBIA.

IMPORTANT CONCESSIONS.

OCEAN CABLE AND ELECTRIC PLANT—OPPORTUNITY FOR AMERICAN INVESTORS.

Consul Pierre P. Demers sends from Barranquilla, Colombia, a translated copy of a cable concession recently granted by the Government of Colombia to Francisco J. Fernandez, a native of that country, which concession has been accepted and ratified by the Colombian legislature. Consul Demers says:

The merchant of the coast has now to send his cables overland on the national telegraph lines to Buenaventura on the Pacific side via Bogota, a distance of nearly 1,500 miles, or almost that from Savanilla to New York. This is not only very expensive, but extremely uncertain, and frequently involves delays of from three to five days, not to speak of the many times when the cablegrams never reach destination. In fact the safest and quickest way to send a cable from this coast to the outside world is by mail to Colon, Port Limon, or the West Indies, to be dispatched therefrom.

The concession ought to be of interest to American capitalists, it being the intention of the present owner, as I am informed, to either sell his privilege or develop it with foreign capital. At all events, lots of material will be needed, which could well be American. I am told that the French Cable Company operating in Venezuela is considering a proposition made by the grantee of the concession. The concession includes also the exclusive privilege of erecting wireless-telegraph stations within the jurisdiction of Colombia. In that respect Savanilla, the seaport of Barranquilla, offers unusual advantages for the erection and successful operation of a wireless station. Stations are already established in Colon, a little over 300 miles from here, Bocas del Toro, Port Limon, Bluefields, and many other ports of the West Indies.

It would be a simple matter to erect a plant here to connect with these stations and through them transmit messages direct to the United States. The Colon and Trinidad stations are very powerful and reach long distances. Again, the Royal Mail steamers making weekly calls at this port are all equipped with the Deforrest system, and a fair amount of marine business could be done with them. A plant here of fair size, with a radius of action of not less than 600 miles, would not cost over $10,000, and the expenses of operation would be less than in the other ports named, as labor here is cheaper and more efficient. The Government guarantees an interest of 7 per cent per annum on practically all the capital invested.

[A copy of the concession can be seen at the Bureau of Manufactures.]

MODERN TRAMWAY.

FRANCHISE FOR THIRTY-NINE YEARS.

Consul Demers also forwards translated copies of a Colombian Government concession given Francisco E. Baena, president of the

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Barranquilla tramway, prolonging for thirty-nine years a previous concession for the building and operating of an extensive tramway.

The new concession includes the obligation to put into service modern cars, substitute electric traction for that of animals, and to extend the lines to Soledad and Sabanalarga. Barranquilla has about 50,000 inhabitants, having gained 30,000 in the last twenty years. Soledad and Sabanalarga are respectively 6 and 36 miles distant from Barranquilla, between which there is extensive cart and mule-back traffic over hot sandy roads. The tram company has also been granted an electric-light franchise. The concession is of interest, it being the intention of Mr. Baena to develop the enterprise with American capital and equip the whole service with American cars and machinery. Copies of the concession can be seen at the Bureau of Manufactures.

The successful establishment in Colombia of a modern trolley and electric-light system under American management and capital will be a good step toward the introduction of American commerce there. To-day there is practically nothing American in the Barranquilla district except the ownership of a few outlying mining industries in adjacent States.

ARGENTINA.

RAPID DEVELOPMENT—PRODUCTION OF WHEAT AND LINSEED.

The ministry of agriculture in the Argentine Republic has published a statement showing that the exports of that country have risen in value from $120,000,000 in 1895 to over $320,000,000 in 1905, while the area of land under cultivation has trebled in that time. The department estimates that the production of wheat for the last season will amount to 3,881,739 tons, and the production of linseed to 640,000 tons, which would mean a surplus for export of about 2,800,000 tons of wheat and 500,000 tons of linseed. The London Times correspondent says that there is "an enormous decrease of more than 25 per cent in the estimate of the wheat crop from the figures given at the end of last year, as the tardiness of the rainfall all over the Republic and the exceptionally severe frost in the south caused very heavy losses."

The same correspondent says that news comes from Las Lajas of the arrival of machinery for working the petroleum discovered in that district about a year ago. The engineers in charge say that the quality and quantity of the oil are all that could be desired.

The working classes in Argentina are enjoying general prosperity, as there has been a general increase in wages and diminution in the hours of work. The Sunday rest law went into operation the 1st of March, which secures to all who work for others the cessation of labor on Sundays, except in those occupations in which it is necessary to work on Sunday, and in such cases the people who work on Sundays are to have a holiday during the week without any deprivation of wages.

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CENTRAL AMERICA.

REPUBLIC OF GUATEMALA.

PRELIMINARIES TO SECURE LAND GRANTS.

PRICES LOW BUT METHODS CUMBERSOME AND TEDIOUS.

Consul-General Winslow, responding to the many inquiries about the public lands of the Republic of Guatemala, and how they may be acquired by individuals, submits the following report from Guatemala City:

The Government lands of Guatemala have never been surveyed. The land is only surveyed on application of the party desiring to purchase after he has decided on the particular land he desires. One can readily understand that this leaves the whole matter in a chaotic state. The Government does not seem to know just where much of the vacant land lies. When a person wishes to locate a tract it is incumbent upon him to find a piece such as he wants and satisfy the Government that it belongs to no one else. This is often a very difficult matter, and requires much time and considerable expense.

LAND CLAIMS AND THEIR COST.

Following is a synopsis of the land laws of this Republic: Vacant lands may be claimed by a written petition, offering three witnesses, who must declare they know that the land claimed is not owned by anybody. Each claim can not cover more than 1,680 acres. After the claim is filed it is published in the official paper. If nobody opposes the claim within thirty days from the publication, the papers are sent to the interior department, which appoints a surveyor if the land is not needed for public use. The applicant must pay the expenses of the survey, but the amount paid is credited to the price of the land. After the survey is made it is examined by the surveyor-general. If the survey is approved experts are appointed to appraise the land, which is done on the following basis, from which is deducted the expenses of the survey and of its revision:

A. $2.23, Guatemala currency, per acre, if the land is proper to raise cattle, grow cereals, vintage, indigo, henequen, and other analogous cultivations.

B. $3.57 per acre if the land is proper to grow sugar cane, banana, tobacco, and raimé.

C. $4.90 per acre if the land is proper to grow coffee or cotton, or contains woods from which timber can be extracted, either for building or for other purposes.

The prices quoted are in Guatemala currency, which at present is worth 9 cents U. S. gold for one peso, making the prices of land 20, 32, and 45 cents U. S. gold, respectively, per acre. When the present prices were fixed, in 1894, the currency was silver, worth about 50 cents gold for one peso.

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SECURING DEED A SLOW PROCESS.

After the appraisement is made the President orders that the title be issued to the applicant on payment of the value of the land, less expenses of survey. The person is fortunate who succeeds in getting title to his land within one year after locating it. It is more often two or three years. This cumbersome way of getting title to land is the fault of the old Spanish system, and the Guatemalan Government has not yet been equal to the task of reorganizing it. Indeed, it would be a very difficult matter, since there are thousands of large estates, scattered promiscuously over the country, that were located two or three centuries ago, with nothing to indicate their boundaries save the record of some old survey referring to some landmark obliterated long ago. There is no restriction on foreigners acquiring and holding land in Guatemala save on the frontiers of the adjoining countries, which is not definitely defined, but it is generally understood there must be at least one tract of 250 acres between it and the border.

REGULATION OF FOREIGN CORPORATIONS.

Consul-General Winslow also sends the regulations governing foreign corporations in Guatemala in reply to numerous inquiries from the United States:

Companies lawfully established in foreign countries may establish agencies in the Republic, with previous permission of the executive power, by submitting themselves to the regulations of the code of commerce in everything concerning the organization of their establishments within the national territory, their commercial operations, and the jurisdiction of the national courts.

The executive power can not grant the permission unless a certificate is presented showing that the foreign company is organized in accordance with the laws of its country. This certificate must be made by the minister or consul accredited by the Republic of Guatemala. The lack of accomplishment by the companies or their agencies of any of the requirements of the law makes the agents personally and mutually responsible for all obligations contracted in this Republic, and they may be prosecuted when their acts cause prejudice to a third person. It is understood that the responsibility of the agents is in addition to any action that may be taken against the companies they represent. The Government may exact a tax or license duty not above 1,000 pesos, now about $90 United States gold, per year for each company. There is no other license tax, either governmental or municipal.

PRACTICAL OPENING FOR AGRICULTURAL IMPLEMENTS.

The demand for American farm machinery is on the increase in the Republic of Guatemala.

One large agricultural company has just received 30 cases of farm machinery for use on its farm, consisting of plows, cornshellers, hay-cutters, etc. I feel there is a good opening here for some good, energetic salesman along this line. Wages are higher, help is scarce, and farmers can afford better to use machinery. American machinery has the preference, but German dealers are pushing machinery of all kinds from their country. Great care should be taken in packing all castings, for boxes are handled very roughly.

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HONDURAS.

NEGLECTED OPPORTUNITIES.

PRACTICAL COMMERCIAL NEEDS—FAULTS OF SHIPMENTS.

Consul Felix S. S. Johnson, of Puerto Cortes, believes that Americans should take more active steps in securing control of the markets in Honduras, the present oversight giving European competitors an opportunity to secure a stronger foothold in Central America. He writes:

It is a matter of regret that American commerce has lost ground in the neighboring Republic of Guatemala, as it is known that the trade of that country is now in the hands of Germans. The Hamburg-American steamers call regularly at the Guatemalan ports on the Caribbean Sea. The German language is now being taught in the schools of that country, and German capital controls almost all of the coffee plantations, the product of which is the chief article of export from Guatemala. With lines of steamers plying between Puerto Cortes, New Orleans, Mobile, and New York, there can be no excuse for our people to complain of lack of transportation. Rates of freight from America compare favorably with those of other lines engaged in traffic with Central America.

During the short time I have been stationed at Puerto Cortes I have inquired from importers and others as to the condition in which goods arrived from the United States. The reply is that more attention should be given to the packing of goods. I have seen a car lot of oil landed at Puerto Cortes in which fully one-half of the oil cans were leaking. Flour has arrived here in poor condition. As to cotton goods, the reason given me by one of the merchants why the exporters of the United States do not secure more orders is that the goods which please Americans do not sell well in Honduras.

In this instance it is necessary that a man should be sent to Honduras to study styles—colors of fabrics most desired by the people. American shoes have the preference over all foreign makes, but a larger market could be secured if a proper canvass were made of Puerto Cortes and towns along the Honduras Railroad. The majority of the trade of this port is handled by New Orleans merchants, little or no goods coming from New York or the large cities of the North.

The credit system is one that should be given greater consideration by American merchants. Longer time and less rate of interest are the inducements held out by the exporters of European countries. Americans should bear in mind that last year's epidemic of yellow fever—the first since 1892, and lasting from May to October—almost ruined the trade of Puerto Cortes and other nearby towns. Merchants were obliged to give credit and in consequence are behind in their payments to American houses for goods purchased many months ago.

NO DEMAND FOR AMERICAN CARRIAGES AND WAGONS.

Answering the inquiries of carriage dealers as to the best method of introducing their goods in Honduras I have to say that there is but one road suitable for the use of American style of vehicles for pleasure or freight. This road extends from Tegucigalpa to the Pacific coast.

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All other roads are trails, and are just wide enough to admit the passage of a mule. Until better roads are built in the Republic there will be no demand for American carriages or wagons.

COMMERCE OF REPUBLIC.

The following statement of the commerce of Honduras for the years ending July 31, 1904 and 1905, respectively, is furnished by Consul Alger, of Tegucigalpa. Values are stated in United States gold.

Country.	1904.	1905.	Country.	1904.	1905.
United States	$1,518,617	$1,689,881	Panama	$209	$213
England	187,874	212,765	Guatemala	3,582	1,600
France	50,701	66,486	Salvador	8,612	8,402
Spain	19,004	21,340	Costa Rica	3,036	.....
Germany	214,217	184,956	Nicaragua	9,406	56,555
Italy	4,929	10,796	Belize	144,795	94,952
China	1,818	7,950	Canada	.....	214
Austria	431	963	Jamaica	.....	840
Holland	120	506	Norway	.....	85
Belgium	271	1,380	Peru	.....	13
Denmark	22,877	86	Sweden	.....	5
Eduador	388	130	Japan	.....	1,805
Chile	368	.....			
Mexico	642	.....	Total	2,191,897	2,361,923

BRITISH HONDURAS.

OPENING FOR CEDAR AND MAHOGANY.

STEAMSHIPS DIRECT TO NEW ORLEANS WILL PROMOTE TRADE.

Consul W. L. Avery writes from Belize that the opening of, or the extending of, a new route of transportation always develops trade, and it should be a matter of much interest to American lumber dealers to know that opportunity is now offered for transporting mahogany and cedar from Belize to New Orleans in small or large shipments. Mr. Avery continues:

This consulate has received many letters during the past five years asking for information as to purchasing Honduras mahogany in Belize, and my answer has been that it has always been practicable to purchase, but well nigh impossible to ship, anything less than a schooner load, or half a small steamer load, thus virtually shutting out American lumbermen from this market.

There was no way of getting the wood from Belize to a Gulf port in small shipments, for the regular lines of steamers were established to carry fruit, first, last, and all the time. Heavy freight for the United States was not accepted.

Of course it would not pay to send a vessel after a few logs of wood, but now it is practicable to secure two logs or two hundred, and the freight is sought for from this date by the Harrison Line from Liverpool, Colon, and Belize, direct to New Orleans. The sailings are monthly, and the present rate in effect is $5 per ton of 40 cubic feet, or 400 superficial feet, for round or squared wood.

There are Boston and Louisville firms cutting and shipping woods from this colony, their works being carried on on a large scale, and shipments made by the hundreds of thousands of feet in their own

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steamers; but the newly operated route will give our smaller purchasers a chance, and for them, more particularly, the foregoing facts are addressed. Should any queries be sent to this consulate they will be referred to Mr. Carlos Melhado, of Belize, the person of longest experience in handling woods. A better way would be to communicate with him directly for the purchase of Honduras mahogany.

NICARAGUA.

GOVERNMENT CONCESSIONS.

FACTORY FOR BANANA FLOUR AND OTHER COMPRESSED FRUITS.

Consul Frederick M. Ryder forwards from San Juan del Norte copies of concessions granted by the Republic of Nicaragua, of which the following are summaries:

Carlos A. Deshon contracts to establish within two years a factory for utilizing, by means of the vacuum process, the fruit produced in Nicaragua. He must make a deposit of a note for 5,000 pesos, the payment of which will be exacted if he fails to fulfill his agreement, which includes that he shall teach his process to two persons from each department of the Republic. In return Deshon receives the right to exploit for ten years the fruits of the country by his process, and to import free of duty all equipment for his factory.

WILL DRILL FOR PETROLEUM.

Dr. Jose Antonio Montalvan is granted a thirty-year concession for extracting the products of crude petroleum, and shall have the sole right of exploiting these deposits in the Republic. He undertakes to drill wells and erect refineries, all of the machinery, drills, and other appliances to be admitted free of duty. Doctor Montalvan is given the right to construct pipe lines, and is to establish his works and storage depot at the port of Corinto, or such other locality as may be agreed upon by the Government. Failure on his part to establish the works within three years will cause the enforcement of his promissory note of 5,000 pesos deposited with the Government.

SALT AND FLOUR MANUFACTURING MONOPOLIES.

Julio Wiest is conceded the exclusive right to manufacture table salt by natural evaporation on the Pacific coast of Nicaragua for thirty years. He may use public lands and forests without charge for the manufacture of salt or construction of vessels, and may import his equipment free of duty. Vessels calling at San Juan del Sur, Corinto, or other ports of entry for loading salt will not have to pay for anchorage, wharfage, or any other dues whatsoever.

Rubén Alonzo is empowered to establish modern flour mills for using wheat, rice, corn, and other cereals, the machinery and equipment for which he may import free of duty. Mr. Alonzo is to have the sole right for twenty years to control the manufacture of flour in the Republic, and obligates himself to stimulate the cultivation of cereals for use in his mills.

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Carlos A. Gomez, manager of the "Compañía de Aguardiente Limitada," has formed a new agreement with the Nicaraguan Government, by which the lease of the revenues derived from liquors is extended to December 31, 1931. The company agrees to pay about 30 per cent more money per annum, or at the rate of 2,000,000 pesos (peso=47.8 cents American) yearly until December 31, 1909; 2,050,000 pesos in 1910 and 1911, 2,100,000 pesos in 1912 and 1913, and 2,300,000 pesos each year thereafter until the end of the contract.

VALUABLE CHICLE CONCESSION.

An exclusive five-year concession has just been granted to José Blen and Claudio Fernandez Gento for extracting chicle from Nicaraguan national forests. The concessionaires may export the product free of duty for two years, but must pay an export duty for the remainder of the contract term, to be based upon that imposed on rubber, pro rata upon the actual market value of the two articles. As the export duty on crude rubber is $5 (gold) per 100 pounds, and the quotation for chicle in the United States market is 30 cents (gold), with rubber at 80 cents per pound, the export duty on the former would consequently amount to $1.87 (gold) per 100 pounds.

The only consideration for the concession is the obligation imposed upon the grantees that they shall instruct 25 natives, who are to be named by the Government, into the mysteries of scientifically incising the trees, preparing and shipping the product. In tapping the trees for the milk the concessionaires are to take every precaution to prevent excessive bleeding; they must also conform to the rules and be subject to the penalties imposed upon persons having the right to extract rubber from the national forests.

CONSUMPTION IN THE UNITED STATES AND EUROPE.

Large quantities of chicle are used in the United States in the manufacture of chewing gum, while in Europe it is used for adulterating gutta-percha. At present the supply of this product for the United States market is exported from Mexico. It has never been collected in Nicaragua, although the trees are numerous in certain sections of the Republic, it being a native of that portion of South and Central America, extending from Mexico to Guiana. It is known here as the nispero or "bully" tree. The wood is frequently manufactured into lumber for building purposes, and being susceptible to a fine polish is valuable for cabinet work.

COFFEE CROP CURTAILED.

Vice-Consul Wallace reports from Managua that the coffee crop of Nicaragua for the season 1905–6 will be about 150,000 hundredweight, or slightly less than two-thirds of a crop. Drought and eruptions from the volcano "El Santiago" curtailed the yield. The low country coffee is small and inferior, but the Matagalpa product is large and well formed, owing to cooler climate and ample moisture. The coming crop so far is very promising, and excellent results may be expected if the rainy season sets in at the proper time and continues normally.

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WEST INDIES.

THE ISLAND OF CUBA.

COMMERCE AND INDUSTRIES OF CIENFUEGOS.

LARGE PURCHASES OF SUGAR MACHINERY—CULTIVATION OF SISAL HEMP.

Consul Max J. Baehr, of Cienfuegos, furnishes an interesting and comprehensive report from which the following is taken:

A matter vitally affecting Cienfuegos is the question of lighterage. Goods that have to be lightered from vessels in the bay to the dock, and vice versa, pay a charge of 8 cents for every 200 pounds, a tax altogether disproportionate to the freights charged from Europe and those to the United States. The harbor-improvement tax of 25 cents a ton, instituted by the intervening government for the purpose of providing a fund for defraying the expense of necessary dredging, will soon be employed in improving the harbor. The tax was levied by the Cienfuegos custom-house authorities January 1, 1899, and at the end of the fiscal year 1905 there was available the sum of $159,807 for harbor improvements.

SUGAR INDUSTRY.

The large sugar plantations surrounding Cienfuegos have not only made heavy purchases of machinery for their mills in order to increase their capacity, but idle and new land has been brought under cultivation to yield sugar cane. This has caused a demand for plows and other agricultural implements, which since January 1, 1905, has exceeded the supply. A like situation may be said to have obtained with regard to machetes for agricultural purposes, the factory of Collins & Co., of Hartford, Conn., not being able to keep up with their orders.

Of entirely new enterprises in the sugar-producing industry is the Jatibonico plantation, between Sancti Spiritus and Ciego de Avila, the land being under cultivation and the machinery installed. It is an American company. Other plantations are being put in order.

The sugar shipments to this port at the close of the 1906 crop will be increased by about 200,000 bags of 325 pounds each. This increase will result from the completion of a branch of the Cuban Central Railroad and by the building of another line into the Cardenas district, which will bring the sugar to this market instead of going elsewhere, as heretofore. Part of these additional shipments will be accommodated in a large warehouse in course of construction by the owner of one of the large plantations.

TOBACCO INDUSTRY.

Tobacco stands second in the list of exports, sugar taking first place. *The tobacco* comes principally from the district of Manicaragua. The

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crop has commanded higher prices than for the past six years, and has been abundant and of good quality. Tobacco raisers are hampered in nearly all parts of the island by the lack of good roads. Next to the question of field labor this is by far the most deserving of attention, and it is to be regretted that the Cuban Congress has not seen fit to use a large part of the money lying idle in the national treasury for the extension of a network of good roads all over the country. The road to Manicaragua was begun under the intervention government, but has proceeded at such a slow pace that less than one-half the distance, 3.7 miles, during the Cuban Government control, has been completed. At present the expensive and slow ox cart, pulled by eight oxen and carrying 3,000 pounds, is still the only mode of conveying the products of the soil to Cienfuegos.

COFFEE AND SISAL-HEMP CULTIVATION.

An agricultural product that yields good returns is coffee. It is of excellent quality and brings good prices to the producer for the reason that the demand exceeds the supply, and a protective duty prevents underselling of the imported article.

A branch of agriculture and industry that has taken a promising start on the island is the cultivation of sisal hemp and the baling of its fiber for the manufacture of rope. The enterprise is situated in the vicinity of Nuevitas. In the baling season about 600 hands are employed. Sisal-hemp culture deserves special attention for the reason that it can be successfully pursued on poor stony soil or on soil unfit for raising any of the other prevailing crops of Cuba and that it keeps money in the country which has hitherto gone to Yucatan.

FRUIT INDUSTRY—IMPORTS OF RICE.

The raising of fruit and vegetables for shipment is limited to the large orange groves at Ceballos. About 1,200 acres are planted with different kinds of citrus fruit trees. The enterprise is conducted by men who understand the business, have ample capital, and is projected on a scale that will, within a year or two, enable the owners to load steamers at Jucaro for shipment to the United States.

There are very large quantities of rice imported from Europe. A start has been made proving that the American product is well liked by the consumer. Further progress in this direction depends on tariff concessions.

FOREIGN TRADE.

The total foreign trade for the fiscal year 1905 amounted to $19,269,252, viz: Imports, $6,888,734; exports, $12,479,097. The imports from the principal countries were as follows: United States, $2,870,955; United Kingdom, $996,537; Spain, $633,914; Uruguay, $490,672; Colombia, $481,105, and Germany, $354,272. The principal articles of import from the United Kingdom were cotton goods, valued at $302,032; machinery, $31,923, and rice, $173,421. The principal imports from Germany consisted of rice, valued at $145,330; beans, $24,841; paper, $20,134; manufactures of cotton, $17,913, and glassware, $15,798. The value of the exports to the United Kingdom was $50,000, Germany $34,950, and to all other countries except the United

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States $13,140. The exports to the United States amounted to $12,380,518, or 99 per cent of the total amount exported.

The imports, by countries, and the duty collected thereon, during the fiscal year 1905, are shown in the following table:

Country.	Value.	Duty collected.	Country.	Value.	Duty collected.
United States	$2,870,955	$526,601	Honduras	$35,006	$3,986
Austria-Hungary	24,440	9,066	Nicaragua	6,460	427
Belgium	35,922	7,895	Mexico	19,774	3,643
Denmark	4,915	937	Porto Rico	39,011	26,550
France	122,654	40,148	Argentina	14,046	4,273
Germany	354,272	111,019	Brazil	101,480	129,585
Italy	4,543	1,647	Colombia	481,105	44,842
Holland	4,537	900	Uruguay	490,672	160,466
Spain	633,914	255,443	Venezuela	280,943	42,808
Norway	4,314	392	British India	256,346	70,822
Switzerland	1,885	436	All other countries	6,233	6,274
United Kingdom	996,537	298,553			
Nova Scotia	98,770	6,673	Total	6,888,734	1,753,386

NOTE.—Of the imports from Brazil, coffee amounted to $100,980; Colombia, cattle, $470,357; Uruguay, jerked beef, $488,043; Venezuela, cattle, $271,040; British India, rice, $209,221, and sugar bags, $46,153.

TRADE WITH THE UNITED STATES.

The imports from the United States amounted to $2,870,955, the principal articles being as follows:

Articles.	Value.	Articles.	Value.
Agricultural implements	$22,535	Iron and steel, manufactures of	$785,118
Animals	138,082	Jewelry	5,828
Breadstuffs	380,357	Leather, and manufactures of	59,162
Candles	12,751	Oil	80,170
Cement	16,084	Paper	7,344
Coal	113,494	Provisions	360,324
Copper, manufactures of	17,423	Rice	168,104
Cotton, and manufactures of	82,014	Steamships	26,000
Earthenware, etc	6,785	Vegetables	48,898
Fish	16,327	Wood, manufactures of	139,864
Glass and glassware	7,198		

The exports amounted to $12,380,518, of which the value of sugar was $12,077,616; honey, $25,767; tobacco and cigars, $245,413; wax, $17,590, and hides, horns, and bones, $2,794.

AMERICAN INVESTMENTS.

Consul Baehr also furnishes an estimate of American investments in Cuba, prepared by Mr. Merchant, vice-president of the National Bank of Cuba, which follows:

Considering this information rather interesting to the financial world, I reproduce Mr. Merchant's figures herewith:

Railroad and street railways	$27,000,000
Sugar and tobacco	54,000,000
City and country real estate, improved and unimproved	11,000,000
Fruit culture	3,500,000
Mining	3,000,000
Commercial and manufacturing	3,500,000
Banking	4,000,000
Steamship interests	1,000,000
Real estate mortgages	2,500,000
Total	109,500,000

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Other conservative business men, however, hold that these figures should be largely increased. The sugar industry and tobacco interests are believed to be really double the amounts given by Mr. Merchant, while the railroad investments are very much underestimated.

IMMIGRATION INVITED.

PROPOSED AID FROM ISLAND TREASURY.

In his recent message to the Cuban Congress, President Palma recommended legislation to encourage immigration to the island. He said:

The sugar industry and tobacco planting being the rich fountains whence spring the many enterprises that yearly engage attention in this island, giving life in various ways to the economic being of the nation, it is but reasonable that the State render as much assistance thereto as may be compatible with other public interests that can not be neglected. One of the measures indicated as an aid to agriculture is the promulgation without delay of an immigration law, promoting on the one hand the immigration of laborers in number proportionate to the needs of the country, and on the other hand stimulating the increase of the rural population by the immigration of foreign families, to whom sufficient facilities and advantages to induce them to make homes in and adopt Cuba as their country should be offered. Any amount that might be applied from the treasury surplus for either purpose, particularly the latter, would be an investment bound to be abundantly productive. With the aid given by such a law it is not to be doubted that a constant current of labor immigration will be assured, if it be borne in mind that during the last year 54,219 immigrants arrived upon their own initiative, without other inducement than the certainty of finding work at good wages.

FOREIGN COMMERCE.

IMPORTS AND EXPORTS BY COUNTRIES.

Consul-General Frank Steinhart, of Habana, furnishes the annexed statement, showing importations into and exportations from Cuba during the fiscal year 1904–5, by countries:

Countries.	Imports.	Exports.
United States	$37,825,352	$85,868,916
Spain	10,413,250	1,145,682
France	12,919,552	1,311,469
Germany	5,107,789	3,782,849
United Kingdom	12,500,184	6,189,802
Other countries of America	10,887,101	1,656,059
Other countries of Europe	2,594,231	626,702
All other countries	709,598	584,513
Total	92,957,057	101,165,992

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TRINIDAD.

INDUSTRIAL AWAKENING.

MODERN TOOLS FOR SUGAR CANE ESTATES.

Consul William W. Handley tells of the revival of sugar growing in the British West Indies from the introduction of modern agricultural machinery. He writes from Trinidad:

During the last few years the sugar industry of the island has suffered considerably. Being unable to compete with Porto Rico and Cuba and receiving inadequate assistance from the home Government, it was feared that the industry would become extinct in the colony. The recent introduction of labor-saving appliances, and particularly the steam plow, has resulted in certain estates in an increase of yield of 50 per cent with respect to plant canes. It is no secret that Trinidad's prosperity depends to a great extent on the sugar industry. Cocoa has sprung into and usurped the premier place among the products of the island, but sugar affords employment to far greater numbers than cocoa, and the steadily increasing cane farming industry is positive proof that the extinction of the sugar trade in the island would be a very serious setback indeed to the local economical situation.

From time to time the planters have been urged to make use of the steam plow as applied in the larger estates of the north, thereby lessening the cost of production. The future of the industry absolutely depends on the cost being reduced to a minimum, and luckily this has been disclosed by the introduction of the steam plow and other labor-saving appliances wherever practical. The prevailing sugar prices in England this year have been so low that many of the estates will make no profit. However, with the increased use of the steam plow and more modern machinery, the cost of production will in the future be materially reduced.

GUADALOUPE.

OPPORTUNITY FOR ENTERPRISING AMERICANS.

Consul G. Jarvis Bowens, of Guadaloupe, writes that there is an opportunity just now for an enterprising American to run a daily passenger line of automobiles from that place to Basse-Terre, a distance of about 40 miles. The government of that West India island will grant a subsidy of $6,000 annually for the assurance that the mail will be taken twice daily, and will require a deposit of $1,500 to insure faithfulness of contract, which can run for twenty years. With the present facilities, travel between these towns is quite a problem. It takes six hours or more by boat or diligence, neither of which run daily, and it is said that a daily motor line would pay. It would require about six machines, one each of 10, 8, 6, 4, and 2 seats and about the same number of chauffeurs until local men could learn to handle the machines. The route is over a good road, but runs through valleys and over mountains, hence strong machines will be needed.

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NORTH AMERICA.

DOMINION OF CANADA.

THE PROVINCE OF ONTARIO.

INDUSTRIAL DEVELOPMENT CALLS FOR VAST SUPPLIES.

Consul Ifft writes from Chatham that American manufacturers who will make an effort will find an active demand for many of their products throughout the peninsula of Ontario, especially in the line of electrical machinery, electric-railway equipment and supplies, bridge and structural iron, builders' hardware, cement, street-paving material, oil and gas well machinery and tools, and steel and cast-iron piping. The consul continues:

The era of electric railroad building through Ontario continues. Some lines are building, other projects are ready to begin construction work, and interurban lines are projected in all directions and are being surveyed, all of which creates a good market for electric machinery and electric railroad supplies. The Chatham, Lake Erie and Wallaceburg Railroad Company will extend its trolly line 20 miles to Rondeau Harbor on Lake Erie, is making surveys 35 miles to Sarnia, and plans a new $40,000 steel bridge over the Thames River, the city of Chatham to pay half the cost. The Windsor, Essex and Lake Shore Electric Railway Company is pushing work on its 50-mile line between Chatham and Windsor. An electric railway has been chartered from Erieau Light-House on Lake Erie, north 50 miles to Wallaceburg. Another projected electric line is from Sarnia 60 miles east to London. Preliminary surveys have been made and the project is now being financed.

BUILDING SUPPLIES NEEDED.

The Chatham Steam Heating Company, which uses exhaust steam from an electric power house, and which last summer laid about 1 mile of mains, will extend both its mains and laterals this summer and will want pipe, cement, and other material. In Chatham and other cities of the peninsula of Ontario an era of building is making a brisk demand for building material, cement, structural iron, and builders' hardware. The importations of builders' hardware into Canada for the six months ending December 31, 1905, amounted to $333,573, of which $294,695 came from the United States. During the same period the importations of brick, tile, etc., amounted to $688,936, of which $545,476 was from the United States.

STOVES FOR NATURAL GAS.

In Kent and Essex counties there has been during the past year a marked renewal of prospecting for oil and natural gas with encourag-

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ing results. The demand for drilling machinery and tools will be steady this season. A proposition to bring natural gas from Tilbury to Chatham will call for some 15 miles of pipe. Other nearby towns also want the gas, and pipe will be needed to conduct it to them, as well as experts in such construction work. The completion of these pipe lines will make the cities they reach excellent markets for natural-gas stoves, and I know of no such stove of Canadian make. The value of the natural-gas product of Canada during 1905 was $314,249. The petroleum product for the same period was 634,095 barrels, valued at $849,687.

AMERICAN GOODS—TOBACCO AND BEET ACTIVITY.

A large percentage of the goods on sale in the Chatham stores are of American make, most of the cotton goods, much of the millinery, boots and shoes, hats and men's furnishings, small hardware, druggists' supplies, fancy groceries, etc. A year ago there were practically no American shoes on sale in Chatham, but to-day every dealer carries more or less of them. One dealer a few days ago showed me an order for $9,000 worth of American shoes, saying: "We like to sell Canadian goods, of course, but all the same we are bound to sell what our patrons want, and they want American shoes."

The proposition to build a beet-sugar plant in Chatham has a promise of success. A new sugar factory is also to be located at Dresden, and the plant at Wiarton, which was idle last season, will be in operation this fall.

From present indications there will be a bumper crop of tobacco raised this year in the Chatham district. Already 500 acres are under way, and many more acres will probably be contracted for. Prices have been good this year.

PURCHASES BY MAIL.

There is apparently a considerable mail-order business from Chatham to American houses. My attention was first called to it by constant calls for American stamps. I have made it a point to keep a supply of stamps on hand to supply this demand, which sometimes amounts to $6 and $8 per month. Parties buying the stamps tell me that they send them to the States for small purchases. As an indication of the extent of mail orders sent to the United States, this item is, perhaps, significant.

NIAGARA FALLS.

PROPOSITION TO DEVELOP GREAT WATER POWER.

Consul Seyfert, of Stratford, makes a report upon the findings of the commission appointed by seven Canadian municipalities to estimate on the cost of developing 30,000 to 100,000 horsepower at Niagara Falls for transmission to various cities in the Dominion. He writes:

The report of the commission figures the cost and distribution of the electrical power, as well as the immense possibilities this development would have in store for the future of Ontario. The power plant and electrical transmission to the seven cities is estimated at $6,684,629 for 30,000 horsepower, $9,354,611 for 60,000 horsepower, or $11,909,100

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for 100,000 horsepower. Additional cost would be involved in delivering power to other cities. The annual cost of maintenance is estimated at $859,610, $1,138,551, and $1,413,634, respectively. This includes interest at 4½ per cent and sinking fund for payment of entire plant in forty years. The cost of electricity at Toronto for twenty-four hour service would be $14.60 per horsepower per year if 100,000 horsepower were developed, $15.73 if 60,000 were developed, and $21.97 if only 30,000 were provided for. The rates at more distant cities would be higher, reaching $34.48 at Woodstock on the 30,000-horsepower development.

It is figured that if 11 other cities join the 7 taking the initiative the full 100,000-horsepower plant could be used. An effort is now being made to have the Ontario government take over all the electrical power developed in the province and sell the power at cost to the municipalities. Government ownership of great public franchises is popular with Canadian people.

This stupendous scheme for power, light, and industrial development throughout Ontario ought to arrest the attention of the people who are interested in the preservation of Niagara Falls. If carried into effect, it means a great additional diversion of water from the Falls—at least 100,000 horsepower more than is now diverted by the power companies in operation and contracted for. This is not all, for the true menace lies in the fact that the charter is subject to an unlimited supply of power, which may in course of time mean ten times as much water as is contemplated to take to begin with.

GROWING INTEREST IN WATER POWERS.

Commercial Agent Shotts reports from Sault Ste. Marie growing interest in the water powers of Canada. Many plants are now utilizing the power and others are being built or planned which, all told, will form a very small percentage of the available power. The Canadian Pacific and the Grand Trunk railways are planning to use some of this power for running trains on branch lines and possibly in some cases on the main lines. Americans might find it profitable to develop some of these water powers, as concessions are readily granted by the Government of Ontario, and power will be in demand for the large numbers of mines and other developments.

QUEBEC.

PROMISING LAKE SUPERIOR TOWN.

Commercial Agent Fleming, of Stanbridge, writes that he has had an interview with T. B. Allen, a leading manufacturer of Port Arthur, Ontario, in which Mr. Allen said:

The Grand Trunk Pacific Railroad has consummated negotiations to enter Port Arthur over the Canadian Northern Railroad lands. Port Arthur will become a great manufacturing seat at no very distant day. Her great waterway (Lake Superior) and her central position warrant this belief, as they can draw the raw material from the east and west and the United States just as cheaply, if not more cheaply, than from any point in the Dominion. Within the last five years the town has grown

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to about 8,000 population, an increase of 2,500 during the time named, and a very large percentage of these newcomers, as well as a large percentage of the older residents, are from the United States. The Canada Pacific and the Canadian Northern now run into Port Arthur, and it is settled that the Grand Trunk will also enter very shortly on a track of its own and these will make the place a distributing point of no mean quality.

There are in Port Arthur and Port Fort Williams eight grain elevators, with a capacity of 20,000,000 bushels, and the Empire Elevator Company proposes to build the ninth elevator, with a capacity of 3,000,000 bushels. There is a blast furnace in operation. Boston capitalists are erecting mills for the manufacture of steel and iron tubes, and they will invest heavily in that industry. Port Arthur is a public ownership city. The city owns its electric lighting plant, its street-car system, and its waterworks, all of which pay good returns, with the exception of the waterworks, which has only been established a short time.

NOVA SCOTIA.

VALUABLE FISHERIES—YEARLY CATCH OVER $23,000,000.

Consul-General Holloway sends from Halifax an article from the Halifax Chronicle relative to "wealth from the sea," which is of general interest. In part it is as follows:

The annual report of the fisheries branch of the department of marine and fisheries, which has just been issued, contains merely a very general reference to the fisheries of the past season, the returns from which promise to equal, if not exceed, the highest aggregate in the history of the industry. The total value of the fish products of Canada in 1904 was $23,516,000. With one exception, in 1901, when a phenomenal catch of salmon in British Columbia swelled the total value of that year's fisheries beyond $25,000,000, this is the largest aggregate on record.

The following statement shows the values of the principal commercial fish (above $100,000) for the year 1904: Salmon, $3,869,545; lobsters, $3,691,151; cod, $3,643,654; herring, $2,156,489; whitefish, $1,058,812; sardines, $790,441; halibut, $784,564; trout, $782,140; mackerel, 750,397; haddock, $638,973; pickerel, $638,567; smelts, $447,579; hake, $363,134; pike, $252,853.

From the year 1869 to 1904, both inclusive, the five principal food fishes have yielded the following values: Cod, $132,622,167; salmon, $81,943,517; lobsters, $75,961,628; herring, $70,262,084; mackerel, $45,089,021.

During 1904 no less than 77,345 men were engaged in the Canadian fisheries, not including the numerous employees in the lobster industry.

BRITISH COLUMBIA.

AMERICANS CONSTRUCTING NEW SAWMILL—CHINESE LABOR SCARCE.

Consul A. E. Smith, writing from Victoria, says that a new cedar lumber mill is in process of erection at Mosquito Harbor, on Clayo-

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quot Sound, on the west coast of Vancouver Island, by an American company from Seattle. The consul writes:

Logging operations are in full operation, though it will be in the fall before shingles and lumber will be turned out. This mill will employ between four hundred and five hundred white men, and expects to ship two or three cargoes a week when in full operation, which means that it will be one of the largest mills in the Province, and the largest in the manufacture of cedar in the Dominion. The company have secured 70 square miles of timber land, on which men are now at work cutting down trees and trimming logs.

The importance of this large mill to Vancouver Island is great. Up to this time the west coast has been inhabited only by straggling bands of Indians and fishing or mining settlements. Five hundred white men given constant employment in this district means the establishment of a thriving community bigger than any ever seen along the coast. The machinery for this mill, amounting in cost to over $100,000, purchased in the United States, has been going forward in special steamers for several months past. American capital and enterprise have done a great deal in the past for British Columbia and Vancouver Island, and are reaching out more this year than ever, especially in securing control of the timber lands and lumber industry.

GREAT DEMAND FOR LUMBER.

The large lumber mills at Chemainus, British Columbia, which are owned by American capitalists and managed by Americans, have for several months past been compelled to run twenty-four hours a day, and yet have been unable to keep up with their orders. They have been and are now seriously handicapped by shortage of labor, both skilled and unskilled. The latter has been for years past performed by Chinese, Japanese, and Indians, largely the former. Owing to the increased tax placed on Chinese immigrants by the Dominion, and the consequent almost total cessation of such immigration, the Chinese already in the province are generally demanding an increase of wages, so that this labor is not so profitable as formerly to the employers. It is generally estimated that a white man is better worth $2.50 than a Chinaman is worth $1.50 per day in work around lumber mills.

MEXICO.

READY-MADE CLOTHING.

GOOD OPPORTUNITY FOR AMERICAN TAILORS.

Consul Samuel E. Magill writes that in 1899 a report was made from the Tampico consulate on the market for ready-made clothing in Mexico, in which it was stated that the Mexican tariff on such goods seemed prohibitive. It now seems possible to Mr. Magill that a good market can be developed in Mexico for this class of goods, and a test of the possibilities will soon be made by a Tampico merchant, who has ordered from New York a lot of 1,000 suits for the local trade.

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The merchant purchased from unsold stocks of summer goods. Owing to duty of about $2.73 Mexican currency per pound, and freight, it will hardly be possible for Mexican jobbers to purchase at the time the trade in the United States buys and at the price paid at that time, but from unsold stocks of the American manufacturers at cut prices, at which unsold lots are sold, the Mexican trade can be supplied for some years, until the demand grows to an extent sufficient to justify special consideration. It is known in clothing circles that in winter the American manufacturer makes and sells to jobbers the clothing that is retailed during the coming summer, and during the summer is made and sold the goods for the following winter. Mexican merchants buying from American jobbers summer clothing in the spring can get the benefit of the cut prices for unsold stock, and that cut should about cover the duty and freight into Mexico.

Should the above-mentioned experiment be successful in Tampico there is no reason why a satisfactory trade might not be developed all through Central and South America as well as in Mexico, and the attention of our clothing manufacturers and jobbers is called to the opening, for through such markets an opportunity seems to offer to dispose of such lots as the American trade does not absorb and after the American trade is supplied. For the coast cities of the Tropics only lightweight summer goods are possible, but the interior of most of these countries is high, and the inhabitants can wear heavier garments for part of the year. As to make and fit, the American ready-made clothing is much better and more stylish than the output of most custom tailors of Mexico.

It might be profitable to establish a factory for the manufacture of ready-made clothing on the American plan in Mexico, but so many points are and should be considered before deciding that point, and so much depends on the personality and business ability of the management of such an enterprise that it could not be properly treated in this article.

MONEY NECESSARY.

FOREIGNERS WARNED NOT TO COME WITHOUT CAPITAL.

The Investor of Mexico City warns foreigners not to come to Mexico without capital. It says:

We have again and again tried to discourage, and even prevent, foreigners from coming to Mexico who simply rely upon their brains to raise capital in this country for their projects or enterprises. However meritorious these may be, the result of any attempt to secure the money here must almost invariably and necessarily result in failure. The reason for this is not far to seek. Mexico is a country that needs money badly, and for every dollar that is available there are a hundred opportunities for investment. The result is that the dollar is soon invested and the cry is always for more.

WHERE MEXICAN MONEY IS INVESTED.

One hundred and twenty companies to manufacture textiles have come into existence, and the whole business seems overdone. A big brewery with foreign capital was established in Monterey some twelve

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years ago. Since then fourteen other big breweries have been established, the Germans taking the lead in that matter. Less than twenty years ago there were only four or five big banks in the entire Republic, and their capital was insignificant. Now in every State, with two exceptions, a concession has been obtained and a vast deal of Mexican money, as well as considerable foreign, has gone into these institutions. A few of our railroads, notably the Hidalgo and the railways of Yucatan, have been built with Mexican capital by Mexican corporations.

The ready money here available for investment is very limited, but it is daily increasing. As the Mexicans sell their huge areas of lands or other big properties they naturally come into possession of large sums of money, but these they almost invariably invest in the manner already indicated, and in any case they are decidedly shy as regards investing in companies which are controlled by foreigners. To the latter we therefore say: Come to Mexico by all means, but come with money.

CANADIAN INVASION.

INDUSTRIAL AND TRADE DEVELOPMENT CREATES COMITY OF INTERESTS.

Vice-Consul-General Eberhardt writes from Mexico City on the great strides which the Canadians have been making in the matter of increasing their business with Mexico.

The Canadian commercial agency established in Mexico City a year ago is bearing fruit, and the subsidy granted by the Mexican Government to the steamship line from Canada is doing much to quicken trade relations between the two countries and to encourage Canadian capital to make still larger investments. On May 7 the Bank of Montreal, with a paid up capital of $14,400,000 in gold, opened a branch office in Mexico City. The Mexican Light and Power Company, composed chiefly of Canadian capital, has for some time practically controlled the lighting of the City of Mexico, and few cities of the world are better lighted. Another Canadian syndicate, made up largely of the same men I am told, has recently purchased the Mexico city tramways and the tramways and lighting service of the city of Puebla. These two syndicates are said to have more than $50,000,000 in gold invested in Mexico.

The electric power of these diversified interests comes from Necaxa, in the State of Puebla. Within a few miles of the town of Necaxa, on both the Necaxa and Tenango rivers, exists a remarkable series of waterfalls with a total drop of something like 3,000 feet in three miles. To control and take advantage of this remarkable water power a vast amount of labor and capital is being spent, and when the two power plants that are now being built are completed they will be capable of furnishing 80,000 electric horsepower. Transmission lines will be run to Pachuca, a distance of 30 miles, to Puebla, 67 miles, to Mexico City, 95 miles, and to the mining camp of El Oro, 171 miles. Even after supplying these points with power there will probably be a great deal that can be used in other enterprises.

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TRANSPORTATION.

RAILROAD DEVELOPMENT.

TURKEY.

OTTOMAN OPERATIONS INDICATE TRADE EXPANSION.

Consul Thomas H. Norton, of Smyrna, makes a report on the Smyrna-Aden Railway as follows:

At the recent shareholders' meeting of this British corporation a report was submitted, a résumé of which will be of value, as the railway is a barometer of the commercial condition of the most prosperous section of the Ottoman Empire. The line operates from Smyrna to Dinair, and has, with its various short branches, a total length of 320½ miles. The gross receipts for the last six months of 1905 were $1,018,000, and operating expenses $298,316. The company pays for 1905 a dividend of 5 per cent on its capital stock, the first time since its reorganization in 1897 that this rate has been possible.

The manager of the company reports a serious decrease in the grain traffic, as a result of poor harvests last autumn. Barley alone showed a shrinkage of 34 per cent, as compared with figures for 1904. Indications for the harvest of the current year are most promising. There has been an increase of 20 per cent in the area of grain sowings.

On portions of the line 94-pound steel rails are replacing the former 70-pound rails, and 25,000 sleepers were renewed during the year by creosoted fir. Terminal facilities at Smyrna undergo steady improvement. Spacious new warehouses are admirably adapted to their purpose. The new pier into the bay will be completed this spring, enabling the crude products of the interior to be transferred rapidly and economically directly on board ocean steamers.

The satisfactory showing of this railroad is a most instructive example of what can be accomplished in the more favored sections of the Empire by energetic and well-directed management, and is worthy of careful attention on the part of American capitalists who have shown interest during the past three years in the matter of railroad construction in Turkey. A decade ago the shares were quoted at prices less than one-half of the par value. Now they are 10 per cent above par.

EXTENSION THROUGH FERTILE LANDS TO SPARTA.

The company has sought of late, with the active support of the British embassy at Constantinople, to secure permission from the Ottoman Government to prolong the line from the present terminus at Dinair, southeasterly to Sparta and into the fertile and productive region intervening between the existing "sphere of influence" of the

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Aden Railway and the territory immediately tributary to the Bagdad Railway. Much opposition to the project has been evoked by the interests controlling this latter line, but it is confidently expected that the imperial sanction will shortly be given.

There is more or less fear that ultimately the majority of the stock of the Aden Railway may be secured by its powerful rival, the Bagdad Railway Company (as was lately the case with the short line from Adana to Mersina), and that its exploitation may be rendered subordinate to the interests of the latter, when once a completed transcontinental line. This operation would not be one of great difficulty, as the stock is widely scattered among small holders, chiefly in Great Britain, ready to accept a liberal offer. Very little is held by financial interests directly concerned in the economic future of this province. Such an acquisition might, however, hasten the day when Smyrna will become the natural outlet for much of the traffic on the Bagdad line, as geographically should be the outcome of the railway situation in Asiatic Turkey.

GERMANY.

HEAVY PENALTIES FOR INFRINGING FREIGHT REGULATIONS.

Consul Slocum reports, from Weimar, that American shippers of goods destined for transportation over the railroads of Germany will save themselves pecuniary expenditure, much annoyance, and possible loss of future business by exercising great care in the preparation of the shipping documents covering the goods, stating with exactitude the net and gross weights in kilos, and if the contents are inflammable or otherwise dangerous in character the exact nature of same should be stenciled on the case or package, as well as stated in the freight bill.

The fines imposed for infringement of the regulations governing freight traffic upon the German roads, as embodied in the freight tariff of April 1, 1906, will be found of interest. The shipper is responsible for the correctness and completeness of the statements contained in the freight bill, and incurs all the consequences arising from inexact or insufficient declaration.

If, at the shipper's request, the freight bills are filled out by railroad employees, the responsibility of the shipper for any errors that may occur is in no wise lessened. If, in carload shipments, the weight quoted in the freight bill shows no larger deviation than 2 per cent from the weight ascertained from the railway scales, the former is considered correct. In case of an incorrect declaration of the contents of a shipment, or of a too low declaration of the weight of a carload or of the overloading of a car beyond its prescribed capacity by the shipper or his agent, in addition to the payment of the possible freight difference and compensation for the damage produced, fines may be imposed and made payable to the companies concerned in the transportation of the goods, the amounts of which vary from $2.85 per kilo (2.20 pounds) to various minor penalties.

In case fines imposed are not paid by the shipper or his agent within a period specified by the railroad authorities, the goods may be sold at public sale, and the proceeds derived applied to the amount of the fine. Should the proceeds of the sale not equal the amount of the fine, the shipper or his agent may be still held legally responsible for the unsatisfied balance.

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CHILE.

NEW LINE FROM ARICA TO LA PAZ.

Vice-Consul R. S. Atkins, writing from Valparaiso, says that on March 8 the President of Chile signed a decree accepting the bid of the "Sindicato de Obras Publicas," or "Public Works Syndicate," for the construction of the railroad from Arica to La Paz, the building of which by Chile was stipulated in the treaty of peace and friendship between Chile and Bolivia of October 20, 1904, and the railroad convention of July 22, 1905.

The total cost of the new railroad will be $10,500,000, the official description being as follows: A steam railroad, of a gauge of 1 meter, to connect the port of Arica with the height of La Paz, having branches to the sulphur beds of Tacora, to the port on the Desaguadero River, and to the mines of Corocoro, said railroad to run by way of Lluta. The syndicate has appointed Josiah Harding, who is well known on this coast in connection with several important engineering enterprises executed under his supervision, to be engineer in chief of the railroad, and his appointment has been approved by the Government.

EARLY CONSTRUCTION—PART ELECTRIC TRACTION.

Preliminary work will be commenced after the inauguration of the construction works, which will probably take place about the middle of April, under the auspices of the President and a numerous party of Chilean and Bolivian functionaries. The entire length of the line is 265 miles, of which the first 115 reach the first and highest summit, 19,850 feet above sea level. The last 18 miles of this section will be a rack railroad, the maximum grade being 6 per cent and the average grade 4½. It is proposed to use electric traction on the first 100 miles, the power to be obtained from the Lluta Falls. Arrangements will be made to develop 30,000 horsepower, this being ample for traction, workshops, lighting, and all other purposes. After the highest summit the gradient falls and the line passes over two other ranges of mountains before reaching the Alto or Height of La Paz, the terminus of the railroad.

The distance of this point from La Paz is about 5 miles and the difference in height about 1,300 feet. By making a detour of 8 miles the line could be carried to La Paz without any heavy gradient to contend against, and this arrangement, though not included in the contract, is almost certain to be adopted before the line is constructed to the point where the deviation would commence.

WORK ON THE TRANSANDINE LINE.

Consul Mansfield, writing from Valparaiso, Chile, says that the formal inauguration of the first section of the Transandine Railway took place on February 12. The section is 34 miles in length, the first station being at an elevation of 2,664 feet, and the last one at 7,221 feet.

From Juncal, the last station on the first section, to the summit there is a distance of 9 miles, and the altitude increases from 7,221 to

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10,365 feet. It is at this last height that the great tunnels are being opened to connect the Chilean and Argentine sections. The longest tunnel will be 3,405 yards long, of which 1,823 will belong to the Argentine section, and 1,582 to the Chilean. This tunnel is now in course of construction. It begins on the Argentine side at a point situated about 1 mile above Las Cuevas, which is at the foot of the summit. Between this tunnel and Juncal station there are 12 small tunnels, which have an aggregate length of 2,194 yards. It is believed that all of them will be finished in a year and a half, with the exception of that of the summit, which will require more time. The small tunnels are made for the purpose of protecting the line from avalanches or falls of snow. The first 3 miles of the second section are ready to receive the rails, and the construction of the remaining mileage is being rapidly pushed forward.

Sufficient rolling stock has been acquired for the first section, and next spring locomotives will arrive at Portillo, the terminus of the second section, and thus the journey from Valparaiso to Buenos Aires will be shortened by several hours.

WATERWAYS.

PERU.

COASTWISE STEAMSHIP PROPOSAL.

Mr. Irving B. Dudley, minister to Peru, writes further from Lima, regarding the proposed Peruvian subsidized line of steamships, that a committee of five prominent men named by President Pardo entered into a tentative contract with the Government with a view to organizing the company. As has been reported, it was to be both a ship and a floating dock company, but the organization was to be effected only in case it should be found practicable to raise the sum necessary—stated by one of the committee as $3,000,000. Mr. Dudley was also informed that one-half of this amount could be readily borrowed on the company's assets were the other half subscribed and paid up. To this end it would be essential that the local banks support the project, and this they would be expected to do by furnishing the capital, when requested, on the subscribers' notes secured by their stock as collateral. The amount of cash that might thus be withdrawn is considered by some to be so large for this market as to be likely to deter the banks from providing the money—though this view, of course, is not entertained by the Government.

EGYPT.

STEAMSHIP SERVICE WITH ROUMANIA.

Mr. J. W. Riddle, minister to Roumania, reports that on October 1 next a new steamship service will be started between Constanza, the chief Roumanian port on the Black Sea, and Alexandria, Egypt.

The time required will be seventy-eight hours, which will include a stop of six hours at Constantinople and one of the same length at the

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Piraeus (Athens), the only ports touched during the voyage. This new service will offer to tourists visiting Egypt the advantage of the shortest of all crossings in point of time, as the unbroken sea passage from the Piraeus to Alexandria will be made in less time than is now taken by any other line sailing between those two ports, and is, of course, much shorter than the crossing from Brindisi, Naples, or any other European port. The sailings are expected to be weekly, but details as to days of sailing, price of tickets, etc., will not be settled before the end of the summer.

GERMANY.

LARGER CANAL BETWEEN STETTIN AND BERLIN.

Consul Kehl, of Stettin, referring to the act passed a year ago by the Prussian house of lords authorizing the deepening of the waterway between Stettin and Berlin, says:

The present waterway between the two cities—over the old Finow Canal, built in 1746, with 18 antiquated locks—has only water enough for vessels of 170 tons burden. Under the new project the course is to be slightly changed, and the canal will have eight new locks and will be so deepened as to enable 600-ton crafts to ply between the two cities. The estimated cost is $71,400,000. When the canal is finished Stettin hopes to regain a great portion of the lost trade that has gone to Hamburg and Lubeck, due to their excellent water connections with Berlin.

AUTOMOBILES.

MOTOR TOURING IN FRANCE.

ADVICE TO AMERICAN TOURISTS—EXPENSES AND PRIVILEGES.

Consul-General Frank H. Mason writes from Paris that, in view of the large and rapidly increasing number of Americans who go to France either with their own motor vehicles or with the intention of buying or hiring in Paris an automobile for the purpose of making a tour through Europe, the following suggestions, based upon the French laws and regulations, are given for the convenience of those who may need such information:

An automobile vehicle imported into France, for whatever purpose, is subject to a specific duty, which varies according to the nature of the motor, whether steam, electric, or hydro-carbon, and also whether the country from which it comes is or is not entitled by treaty to the minimum tariff on imports into this country. America, unfortunately, has no such treaty, and therefore motor vehicles originally made in the United States are subject to the general or maximum tariff rate, viz: Automobiles, for persons, weighing 275 pounds or more, $11.58 per 220 pounds; motor bicycles, etc., weighing less than 275 pounds, $28.95 per 220 pounds. Electric automobiles are taxed as above on the vehicle and motor, and $4.14 per 220 pounds on the accumulators

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The speed of an automobile in Franc is limited by governmental decree to 30 kilometers (18 miles) an hour in open country, and 20 kilometers (or 12 miles) an hour in cities and towns. Any speed exceeding this, although it may be leniently considered by the police, is contrary to law and, in case of accident resulting from the excessive pace, liable to get the offender into serious trouble.

GENERAL ADVICE TO TOURISTS.

In case of accidents on the road it is of the highest importance that the foreign automobilist should control his temper and preserve the courtesy of bearing toward officials and other persons, for the lack of which nothing atones in France. If another person has been the cause of or in any way concerned in the accident, his name and address, together with those of any witnesses present, should be obtained and written down, the automobilist giving in return his own.

In case indemnity is voluntarily paid for an injury, either real or imaginary, a receipt should be taken, showing that the payment involves full immunity from subsequent proceedings of any kind. Finally, if signaled to stop by a policeman or other official, the tourist should always obey, treat the delay as good-naturedly as possible, and if summoned to appear before a court he should never fail to do so, either in person or by attorney.

When an American hires in Paris or elsewhere in France an automobile for the purpose of making a tour in this or adjoining countries, and when (as is usually the case) the person or firm furnishing the vehicle supplies also a chauffeur, a carefully drawn contract should be made and signed to define clearly the responsibilities of both parties. As this contract may afterwards become the basis of proceedings before a French court it should be written on stamped paper and cover every point that may be likely to come into dispute.

GREAT BRITAIN.

HIGH RECORD OF MOTOR TRADE.

Consul Frank W. Mahin, of Nottingham, furnishes the following on the cycle and motor-car trade of Great Britain:

So far this year the cycle and motor-car trade of Great Britain is fully up to the high-water mark of 1905. This is especially true of the cycle trade, which last year emerged from a period of depression and at a bound reached prosperity. It is quite impossible to get accurate figures of output, values, and the like in the cycle industry. The last effort made by this consulate in the direction of a local factory was rudely repulsed, owing to an alleged belief that the inquiry was made at the direct instance of American cycle makers seeking a market in England. But sufficient information is obtainable to place the output of cycles in this country in 1905 at about 600,000 machines, of which about 48,000 were exported. The number imported is not learned, but it was relatively small.

Well-informed judgment places the United Kingdom in the van of all countries as a cycle producer; or, at least, as the most independent of all, in having practically absolute control of its home market.

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There is probably no British trade of equal magnitude in which foreign competition now troubles this country less.

LOW-PRICED MACHINES POPULAR.

The great cycle output of last year is attributed to the new policy of low-priced machines. The $40 to $60 cycles were generally reduced to $30 to $50. Up to a recent date the only cheap machines in this country were foreign imports. It is claimed that the cheap British cycles of to-day are much superior to those of foreign make at the same prices. Last year only 2,345 cycles were imported, of which the average value is given as £6 5s. The average value of British machines exported was £6 4s. From this comparison it is deduced that Great Britain need fear nothing from outside competition.

While the home consumption of cycles in 1905 was unusually large—over 550,000—an even larger consumption is expected this year. All factories have prepared for an increased output, and manufacturing was so active during the past winter that the accumulated stock now ready for instant delivery is estimated at about 200,000 cycles. A great increase of exports is also expected, and this is warranted by the value of the foreign sales in January and February, which were 30 per cent greater than those in the same months last year.

INCREASE IN MOTOR CARS.

An increased motor-car trade is also foreshadowed this year, but foreign competition is here a serious factor. About 16,000 cars were made in this country in 1905, valued at about $20,000,000. The imports were less in number, but average value being higher, the total value was nearly the same as that of the home product. Imports have steadily increased in recent years, and have greatly increased this year so far, in comparison with 1905 and 1904. The exports last year totaled only $2,500,000, but encouragement is found in the fact that this is an increase of over 50 per cent in comparison with 1904 and 1903, and also in the fact that the exports in January and February of this year increased nearly 100 per cent over those of the same months in 1905. Another hopeful aspect of the situation is that the British motor-car industry is but an infant, with boundless possibilities of growth and development before it.

Little is said of motor cycles in trade reports. They have been in scant favor lately, having so many defects which seem irremediable. Comparatively few were made in this country last year, in the absence of active demand and owing to the disposition of many owners to get rid of their machines at almost any price. The probability for the present year is not yet foreshadowed.

AZORES.

PROSPECT FOR PURCHASES IN AMERICA.

Consul Pickerell, of St. Michael, Azore Islands, writes under date of March 26 that circulars had been issued to the investing public inviting subscriptions to an automobile company whose capital stock in reis is equivalent to about $13,500. The interest evinced in the enterprise

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leads the consul to believe that the entire amount will be speedily subscribed. He says:

Should the hopes of the managers be realized, and I believe they will be, the company intend at once to send their manager either to Europe or America to purchase the necessary machines. They are very anxious to get started, and hope to have everything running not later than June 10 in order to take advantage of the summer trade. It is the present intention of the leaders in this new movement to commence operations with four machines, two of 12 to 15 horsepower and two of 6 to 8 horsepower, capable of carrying five passengers each, which they estimate will be sufficient to serve their purpose, as the grades are in the main easy. Should this initial experiment prove a success, they will order more machines in a short time.

Owing to the fact that this company was organized in a few hours, it has been impossible to get exact details. Interested parties informed me that the type of machine mentioned above can be purchased in Germany or France for about $1,500. I have induced the present manager to seriously consider the placing of the order in America, or at least make that country a visit with a view of buying should he find what he wants. In order that no excuse may offered, I would be pleased to receive bids for four gasoline automobiles, of from 12 to 15 horsepower, each capable of carrying five passengers. Furnishings to be good, plain, and durable. Tires to be solid rubber. Cars to be well made, strong, and durable, strength being preferred to beauty of furnishings. Price is a very important feature, as well as deliveries, which must not be later than May 15. Prices can be made f. o. b. New York, terms cash against documents.

Should the manufacturers prefer they may send their bids direct to the manager, Mr. Augusto da Silva Moreira, Ponta Delgada, Saint Michaels, Azores, or they may cable him, F. Augmoreira, Ponta Delgada. Owing to the fact that our cars have never been seen here the idea prevails that they are light, easily put out of order, and in general poor seconds to machines of continental manufacture. In view of this, and the fact that the company will be, from the character of the men composing it and their ability to secure concessions, a success, I believe it would pay our manufacturers to give this proposition serious consideration and lower their prices and profits in order to secure the future business, which will not be small. I would also suggest that a photo accompany the bids.

CANADA.

POPULARITY OF MOTORS INCREASING.

Consul Ifft writes from Chatham that the establishment of an automobile factory there and the recent automobile show in Toronto call attention to the growing popularity of the motor car in Canada:

During 1905 there were imported into Canada 408 automobiles, valued at $489,000, the previous year's imports having been 362 cars, valued at $317,000. Last year the three concerns operating manufactured and marketed in Canada probably 200 cars. It is estimated that there are now in the Dominion about 1,500 cars. The demand is on the increase,

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and it is predicted that not only will the importations this year increase, but the home production will probably be 500.

Motoring afloat is another amusement which is becoming daily in more favor among Canadians. It is not only cheaper than motoring on land, but combines many of the charms of yachting and canoeing. The engines are less expensive than those for automobiles, while the cost of maintenance is reduced to a minimum. A local firm manufactures a small motor boat, and there are a number of such factories throughout the Dominion. The importations of motor boats and motors for boats show that the demand is very largely in excess of the Canadian factory production.

ICELAND.

MOTORS USED IN FISHING.

A remarkable feature in the Icelandic fishing industry is the introduction of motor boats for the coasting fisheries, reports the British consul at Reykjavik. During the last year the number of these boats has greatly increased, some being built in Iceland with imported motors, besides a good many motor boats brought from Denmark. They are mostly used at Seydisfjord, Isafjord, and Oefjord, some for the transport of goods. Most of the boats are open, but some people buy them decked for deep-sea fisheries.

Automobiles and motor boats have made their way to Helsingfors, Finland, reports the British consul there, who says that everything points to the fact that in the coming season the use of these will be greatly extended, several agencies having been appointed in Helsingfors and Abo.

FINLAND.

ELECTRIC POWER FROM RIVERS.

Mr. Cooke, British consul in Finland, asserts that the committee in that country which has charge of the building of railways is evidently determined to continue the extension of the system, although this work has added heavily to the national debt in recent years. The communications department of the Senate has reported that the question of electric railways is an important one to Finland, and Consul Cooke says that it is beyond doubt possible and practicable to work the majority of the Finnish railways by electricity, the power being taken from the rivers Vuoksen and Kymmene. The communications department suggests that a committee should be appointed to gather all information in the matter.

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LABOR.

PROGRESS IN ORGANIZATION.

STRENGTH AND POWER IN GERMAN EMPIRE.

PROBLEMS FOR LEGISLATION—RELATION OF WAGES TO COST OF LIVING.

Hugo Muench, formerly consul at Plauen, transmits a report on the labor conditions in Germany. He says:

More and more are the industrial laborers and operatives of Germany becoming firmly organized into unions. The largest body is that of the so-called "Free Labor Union," chiefly consisting of social-democrats, and numbering 887,698 members on January 1, 1904. The "Hirsch-Dunker" labor unions embrace 110,215 members. The "organized" Christian labor unions contained 100,053 members, while the "independent" Christian labor unions numbered 68,724 members. These organizations collected in annual dues more than $4,285,000, and had accumulated funds to the extent of over $4,000,000.

INCORPORATION OF LABOR UNIONS.

One problem brought before the national legislature is that of granting to these vast bodies some form of corporate existence. Not that the common-law rules governing voluntary associations do not substantially obtain here, but there is an unpleasant personal liability attached to all membership in these unincorporated societies, and the organizations at present lack the power of acquiring realty, of holding mortgages on real estate, or of instituting and defending actions in the name of the associations. On the other hand, almost any form of legal entity accomplished by an act of incorporation would be accompanied by the danger of governmental supervision, the control of its corporate acts, and liability in case of damage traceable to the declaration of strikes, etc. Apparently some form of legal existence will be granted the unions if only they can unite upon a plan satisfactory to them all. Germany has gone so far in conceiving legislation in sociological directions that it will hardly balk at this additional step.

Another of the demands which forms the subject of agitation is aimed at the reduction of hours of labor, especially for female operatives. A large number of the female operatives are mothers.

ABNORMAL CONDITIONS.

One of the saddest impressions gathered in a tour of the industrial districts is caused by the abnormal number of crippled and emaciated children. Rachitis has done its deadly work everywhere. Malforma-

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tions constantly meet the eye in daily walks, and nowhere is the dreadful affliction of hip dislocation so prevalent as here. Authorities do not fully agree as to the true causes of this deplorable condition, but so much is assured, that any child whose mother spends eleven hours of each week day at machine work, both before and after its birth, is seriously handicapped in its chances for the development of a healthy physique. Neither are conditions in that respect improved by the fact that in this district at least some 30 per cent of births are illegitimate.

COST OF LIVING.

SAD CONDITIONS IN CERTAIN INDUSTRIAL DISTRICTS.

Consul Pike believes that, in view of the constant unrest and agitation of the wage question in the United States, it is not amiss to note the conditions that exist in other countries. He writes from Zittau:

An official organ, the Dresdener Anzeiger, shows a deplorable state of German labor affairs. The worst form of misery is to be found in the district of the Erzgebirge, in the trimming, lace, flower, and toy industries. While up to 7 cents per hour can be earned in the trimming industry, a wage of 2½ cents per hour is considered high in the lace industry, and ¼ and ¾ cent are not seldom met with. Children generally assist and the workshop is, in most cases, kitchen and bedroom combined.

The flower industry shows an equally sad state of affairs, where the hourly earnings in the town of Pirna are sometimes not more than 1 cent, or even less. The greatest misery is found in the toy industry; in the majority of cases the earnings are below 1¼ cents per hour. The working hours are long, being as much as ninety hours per week.

I venture the opinion that there is to-day no economic question so thoroughly misunderstood and so persistently misrepresented as the wage question and the comparative relative cost of living in the United States as against that of other countries. When the foregoing scale of wages is considered, together with the following prices of food stuffs which enter into the daily consumption of all classes, comment is entirely unnecessary: Beefsteak 26 cents per pound, pork 20 cents, bacon 21, ham 29, veal 19, mutton 18, and butter 30 cents per pound, chickens 59 cents each, eggs 20 cents per dozen, milk 5 cents per quart, tea 48/95 cents and coffee 28 48 cents per pound, flour $9.04 per barrel, apples $1, and potatoes 24 cents per bushel.

PATERNAL SUPERVISION.

RESULTS OF LIBERAL PROVISION BY EMPLOYERS.

Consul Harris, writing from Mannheim, quotes a German manufacturer whose products go to all quarters of the globe, and whom he heard say that it was not their patents, nor their technical force, but their workmen which gives them a commanding place in this trade. Although German wages are low, Mr. Harris enumerates some of the advantages which German laborers enjoy, as follows:

Many German concerns own dwelling houses, and rent them to workmen at actual cost. They provide restaurants and meals at actual cost,

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furnish fuel at wholesale cost, give transportation in whole or part to employees living at a distance, pay pensions in certain cases, and work people's reading rooms, baths, hospitals, savings banks, and cooking schools for girls are maintained.

The annual report of the imperial insurance department for 1905, recently submitted to the Reichstag, shows the sums paid to beneficiaries under the compulsory insurance laws in force for the protection to workmen. For accident injuries $32,415,000 was paid to 1,034,773 persons injured, or their dependents, an average of practically 1 out of every 60 of the total population of the Empire. Sick and indigent persons received last year $38,080,000. Annuities were granted to 145,412 persons. To these sums is to be added $40,460,000 paid yearly from the local sick funds (krankenkasse) throughout the Empire as sick benefits, burial charges, etc., making a total of about $111,860,000 annually paid as benefits under the workmen's insurance laws now in force. During the same year 200 concerns employing labor paid in gifts to workmen and in permanent funds and other provisions for their welfare, apart from wages, $27,608,000.

BENEFICENT CARE OF WORKERS BY GOVERNMENT.

Reference is also made to the measures adopted by the department of mining of Prussia for miners' houses, of which 8,636, with room for 18,962 families, have been provided wholly or partly at State expense. Thirty-two buildings, with 5,051 beds, have been provided for unmarried mine employees in the same manner, and are furnished at low prices.

It is perhaps too soon to determine how these forms of State and private benevolence may finally come to be viewed by workmen. Large manufacturing concerns, from whom much attention has been given to the class of work referred to, have not wholly escaped labor troubles during the past year. The employee class have in some cases shown an apathy toward present advantages and future rewards for faithful service, and have resorted to strikes and other means to secure higher wages or shorter hours of labor. It can at all events be said that the State has with much ingenuity and skill sought to lessen the distress due to accident, disease, and old age among its wage-earners, and that in all parts of the Empire private enterprise has done much toward the same end. The results, worked out under conditions differing much from those in the United States, are thus far for the most part satisfactory.

RAISING THE STANDARD.

ADVANCED EDUCATIONAL FREE COURSES FOR MASTER WORKMEN.

Agent George H. Murphy, of St. Catherines, who served for many years in Germany, describes the systematic effort now being made in that country for the purpose not only of converting laborers into skilled workmen but of raising the standard of intelligence and efficiency among master workmen in all trades.

The object directly in view is to advance the quality and artistic merit of German products and thus both to lessen the importation into

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Germany of high grade foreign goods and to aid German industries in their struggle for increased success in foreign markets. One of the most recent plans for reaching and improving individual workmen who have completed old courses of instruction and who are already engaged in business is exemplified by a highly successful experiment at Frankfort-on-Main in the form of special courses for master workmen under the supervision of the director of the industrial school in that city, and with the financial support of the Prussian minister of commerce and of the municipal government, four nine-weeks' courses, free of cost to students, were commenced on January 8, 1906, the corps of instructors consisting of three school-teachers, one artistic locksmith, one decorator, one doctor of medicine, one master carpenter, and one master tailor. The plan of instruction was as follows:

1. *For carpenters.*—Trade drawing—simple and difficult designing for furniture and buildings. Free-hand drawing—ornamentation in outline and with shadows; study of style, study of materials, tools, and machines, healthy and diseased woods; decay and its prevention, domestic and foreign lumber, uses and advantages of different woods, auxiliary materials; tools and machines; planing, polishing, staining, veneering, and inlaying. Bookkeeping and calculations—simple bookkeeping, daybook, cashbook, principal auxiliary books; memoranda, inventories, calculation of cost of materials, wages, other expenses, and profits.

2. *For locksmiths.*—Trade drawing, measuring, and drawing of simple objects and iron connections, free-hand drawing, study of materials, etc.

3. *For upholsterers.*—Trade drawing and cutting of materials, etc., artistic study of linoleums and carpets, etc.

4. *For tailors.*—Trade drawing, study of the most important articles of clothing for gentlemen, construction of garments, etc.

Though the number of students in each course was small, much interest was manifested, and the results were so satisfactory that it has been decided to extend and improve the courses next year, making provision also for other trades. Accompanied by their instructors the students visited various industrial museums, workshops, and stores. Subsequently lectures were delivered to the students by the secretary of the Frankfort Social Museum on the subjects of trades, guilds, and insurance.

STRIKES INCREASING.

Strikes increase in number every year in Germany. As shown by the published statistics, the average number of strikes for the years 1899 to 1903, inclusive, was 1,242; in 1904 it rose to 1,870, and in 1905 to 2,057. Of much significance is the increasing number of lockouts, which show that combination among employers is also developing. The number of lockouts, which averaged only 42 for the period 1899 to 1903, rose in 1904 to 120, and in 1905 to 200. It is expected that the figures for 1906 will show a further considerable increase. The industry most seriously affected by the movement at the present time is that of the metal workers. The United Association of German Metal Industrialists has been considering the advisability of a general lockout of all the metal workers.

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PREVENTIVE FOR STRIKES.

CONDITIONS IN CHAMPAGNE DISTRICTS.

Consul Miller, of Rheims, furnishes the following report on the relations that exist between the manufacturers of champagne and their workmen:

There are thousands of men employed here in the great champagne industry. In recent years strikes have been unknown. The employers have discovered a preventative and have demonstrated its practicability. This is the bonus system. Every employee who merits it is paid annually a bonus in addition to his wages. The bonus is not made part of the contract between employer and employee, but it is well understood that employees who make good records will receive it. No employee knows what his standing with the firm is until the day for paying bonuses arrives. As pupils in the public schools have their standing in politeness, respect for and obedience to their teachers, punctuality, and ability written in their weekly "notes," so the employees of the champagne houses have their records carefully registered.

The head of one of the great manufacturing houses here, who is frequently in America and is an indirect employer of labor there to a certain extent, speaking about the frequent strikes in the United States, said: "While I have great respect for the skilled workman in the United States and what he accomplishes, I regret that, generally speaking, the laboring people of your country have not been trained to respect their employer and demonstrate that loyal spirit toward the employing firm as they should have been, and often the employer does not respect them as he should."

The workingmen in the champagne trade have an organization to which their employers contribute liberally and otherwise encourage. The object of the society is for mutual help in case of sickness or misfortune. Every member's wife who has a child born has the doctor's bill paid, and in addition receives twenty francs ($4) with which to purchase the infant's first outfit of clothing.

ITALY.

EFFECTIVE EFFORTS TO PROTECT THE WORKING CLASSES.

Consul J. E. Dunning, of Milan, reporting on industrial legislation in Italy and the great benefits derived therefrom, says:

Legislation has made possible in Lombardy the application of rigid laws governing the employment of women and children in factory labor, in the protection of workmen, in compulsory insurance and pensions, and in better housing for the laboring class. Women's hours for labor and the age at which children may be employed are definitely fixed. In Milan there are nearing completion several series of workmen's houses to take the place of old tenements in the slums that were torn down to make room for the new structures. The latter are built on modern principles, with light, air, sanitary arrangements, bathing facilities, and utter abolishment of the former conditions under which entire families lived in one room. These quarters cost in rent

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no more than the old ones did. They are under municipal control, a special election having been held to express the will of the people on the subject, which was carried by nearly eight votes to one.

REGULATION OF WAGES.

CONCILIATION BOARDS IN ENGLAND.

Textile manufacturers the world over, says the New York Journal of Commerce, will be interested in three plans for the scientific regulation of wages now under discussion in England. The problems are very difficult, but give promise of an early solution. The principle is that of basing the wages on the returns on the capital employed. There is to be established a conciliation board, and the rate of wages that is to be the standard rate was that paid before the last 5 per cent advance. When there is an increased return on the capital of 2 per cent above the fixed rate of profit, then there is to be an increase in wages, but no advance or reduction of wages is to be made unless the rise or fall in profit, as the case may be, reaches at least 2 per cent. The workingmen find some difficulty in understanding the proposition, but the opinion is generally expressed that some basis will be reached for a satisfactory understanding.

TEXTILE TROUBLES.

GERMAN WEAVERS AND CHEAP CLOTH.

Consul Pendleton King writes from Aix-la-Chapelle that a textile concern there lately set their weavers to work on a kind of cheap cloth made from an inferior kind of wool difficult to handle, by which the weavers made less wages, which led to a strike. Concerning its settlement and general textile affairs in that German city, Mr. King continues:

The strikers hoped the trouble would extend to other firms, but the manufacturers' organization informed the strikers that they must resume work by a certain day or there would be a general shutting out of all the employees in the textile industry.

After a conference between the labor and manufacturers' organizations, the weavers have resumed work with the understanding that their complaints would be investigated and such advances in wages made as the circumstances justify. There are in Aix la Chapelle about 50 manufacturers of cloth with about 14,000 employees, of whom 5,000 are weavers, earning $3.57 to $5.95 per week. Aix la Chapelle has the octroi system of taxes, and all articles of food pay a tax on entering the city, and are therefore dearer than in other parts of Germany. Consequently the condition of the weavers here is not quite so good as in Saxony, although the wages are better.

A prominent manufacturer informed me that when such cloth as he makes (ladies' cloth) depends chiefly on the machinery used, and not on the weavers, the German manufacturers can not successfully compete with the American manufacturers for the American trade. But when the manufacture depends to a greater extent on the weavers instead of the machinery, the smaller wages paid here enable them to compete with American manufacturers, and last year his firm sold one-third of their entire product to the United States.

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MISCELLANEOUS.

EUROPEAN PAWNSHOPS REGULATED.

METHODS IN GERMANY, FRANCE, BELGIUM, AND RUSSIA.

OFFICIAL SUPERVISION FOR THE PUBLIC WELFARE--PROFITS DONATED TO CHARITY.

Consul-General A. M. Thackara sends from Berlin an exhaustive statement concerning the pawnbrokers of that city, and also of other parts of Germany.

There are no pawnshops under the management of the municipal authorities in Berlin, but there is a royal pawn office and numerous private pawnbrokers, who have to be licensed and are strictly regulated by law. The Royal Prussian pawn office was established in 1834 under the control of the Royal Bank. The purpose of its establishment was the promotion of the common welfare, and all profits from the business, or any surplus which remains after charging a moderate rate of interest and deducting all costs of administration, are devoted to charitable purposes. It was established by a cabinet order signed by Frederick William in 1834. The officers are appointed by the bank, and there are strict regulations for the conduct of the business and for auditing of the accounts. The institution lends from one-half up to two-thirds of their estimated value upon all moveable effects not expressly prohibited, including jewels, precious stones, gold, silver, copper, brass, tin, and similar metals, articles of clothing, and other useful objects for the storage of which no great space is required. Excluded from acceptance as pledges are worn-out goods, fluids, copper plates, books, and all fragile articles, or others easily spoiled or which would cause fire.

MUST BE IDENTIFIED TO GET A LOAN.

Persons who want to borrow money from the pawnshop, providing they are not known to officers of the institution, have to establish their identity by documents or by the testimony of credible persons, or from those who are prohibited by law from borrowing. There are specially appointed appraisers to estimate the value of any article pledged. A ticket is issued showing the name of the pawner, a description of the pledge, its estimated value, and the amount loaned on it. If the pledge is not redeemed, it is sold; and if any greater amount is obtained for it than the amount loaned, the excess is returned to the person who pledged the article. Every pawner has the right to redeem his pledge before the contract time has expired, but interest must at least be paid for one month. Provision is made for the recovery of the article pawned providing the owner loses his pawn ticket.

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The lowest amount upon which money is loaned is 1 thaler, equal to 71 cents. For the department of the royal pawn office, located in the district of Berlin where the poorer classes reside, a loan is made on 2 marks, equal to 47 cents. The rate of interest on money loaned on pledges which the royal pawn office may legally charge is 1 per cent per month, or 12 per cent per annum. Upon easily negotiable securities, however, such as city, State, or Government bonds, it may charge interest at the rate of 6 per cent per year, but never less. In other words, the royal pawn office is not permitted to enter into competition with the banking houses.

SURPLUS DONATED TO CHARITY.

The surplus, donated to charitable purposes, is not large. In 1888 it was $14,764, in 1889 it fell to $10,765, and in 1900 there was a loss of $2,860. The profits in 1904 were $2,131. These figures of the royal pawn office and its branches show that it is difficult to make it pay expenses. There are 174 private pawn shops in Berlin, so much more conveniently situated that they take the business away from the royal office. These private establishments are regulated very strictly, and the sale of unredeemed pledges has to be carried on by officers designated by the Government. The appraised value of the loans of the royal pawn office was at the close of March, 1905, $1,067,398. The working capital of the royal pawn office at the close of 1905 was $883,072.

Among the persons who borrowed money at the royal office were merchants, artisans, tradesmen, capitalists, and property owners, artists, actors, military men, and people of all classes. There are no reliable statistics available which would indicate the amount of business done by the private pawnshops in Berlin. One of the principal local pawnbrokers estimates that the pledges of the 174 private pawnshops will average about $10,000 each annually, the value of the pledges reaching $10,710,000 and the loans $3,570,000. They all seem to be prosperous.

PRIVATE SHOPS DO THE MOST BUSINESS.

In none of the cities in Germany can the public pawn institutions compete with the private pawnbroker, notwithstanding that the public institutions, on account of their official character, afford greater security in the storage of the pledges, the values are estimated by sworn appraisers, the rate of interest is lower, and in case of auction sale of the unredeemed pledges the pawner is better protected.

In the royal offices the pawner may redeem his pledge within a month by the payment of a month's interest, while in the private pawnshop no less than two months' interest is ever charged, however short may be the loan period. In the Government institution after the pledge is sold by auction the pawner is relieved from all responsibility, no matter if the price obtained at the sale should be less than the amount loaned with interest and the cost of sale. Under similar conditions, however, the private pawnbroker may sue the pawner for the difference. A private pawnbroker may charge interest of 2 per cent per month, or 24 per cent per year on loans not exceeding $7.14, while the royal pawn office may only demand 1 per cent per month, or 12 per cent a year.

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In a great majority of the Prussian cities of more than 50,000 inhabitants the existing municipal pawn offices were founded in the first half of the nineteenth century. After the year 1881 there were only two newly established—Essen in 1881 and Altona in 1882. On the other hand, the municipal pawn office of Magdeburg, founded in 1840, was suspended on the first of February, 1891, and negotiations are in progress looking for the dissolution of the municipal pawn office at Breslau which has existed since 1781.

FRANCE.

THE SYSTEM VENERABLE IN PARIS.

Consul-General Mason, of Paris, Consul-General Roosevelt, of Brussels, and Vice Consul-General Mueller, of St. Petersburg, have made reports concerning pawnshops in those cities.

Consul-General Mason says that the municipal pawnshop system of Paris is a venerable institution, having been founded in 1777. It is a distinct bureau of the municipal government and includes in its control three members of the committee of public charities, three private citizens, and the prefect of the police. There is a main office and 21 branch offices. It is organized and administered to fulfill a distinctly philanthropic and useful purpose of enabling persons of limited means, or overtaken by misfortune, to obtain at a not excessive rate of interest money to meet pressing necessities without the sacrifice of their self-respect or the necessity of falling into the hands of extortionate usurers who in most other countries prey so rapaciously upon the victims of poverty and misfortune.

The latest year for which complete statistics were obtained was 1904. During that year 1,449,168 loans on jewelry, clothing, bicycles, etc., were made of the average amount of $6.46 each, and the total sum loaned was $9,361,625. Besides these there were made during the same year 3,619 loans of $200 or more each, the total sum of which was $1,709,832. The rates of interest charged amounted in all to 8 per cent on jewelry, articles of clothing, household equipments, etc., and 6¼ per cent on stock, bonds, and other securities deposited as collateral. Articles forfeited by nonpayment or failure of renewal are sold at auction by a class of special auctioneers, of whom there are fourteen, located in different parts of the city. If a greater sum is obtained for the article than that which was loaned thereon, the owner may claim and recover the difference. In 1904 the profit above expenses amounted to $992,417, which, after the deduction of various incidental obligations, is turned over to the fund for the support of municipal hospitals.

ONE OF THE DEFECTS.

This is an official monopoly; no other pawnbroker is allowed to exist or do business within the limits of the municipality. But there is a class of outside operators whose traffic forms the one really sinister feature of the whole system. These are the brokers or dealers in pawn tickets, who work more or less secretly It frequently happens that a person who has pawned an article wants more money than he

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has been able to obtain at the municipal pawn shop, which does not exceed one-third of the real value of the article. He goes with this pawn ticket to the broker, who lends him 20 per cent of the face value of the ticket, but at an extortionate interest of from 3 per cent to 7 per cent per month. If this interest is not paid when due the broker redeems the article, which he sells at one of the auctions, and thereby reaps a large profit. The story is told of a wedding dress on which interest was paid for fifty years by a poor woman who could never command money enough at one time to redeem it.

Various measures have been proposed to counteract this evil, but nothing satisfactory has yet been devised, and it is generally conceded that the only effective remedy would be for the pawn-shop to lend on each article a much larger percentage of its value and then keep the pawn ticket until the property were redeemed or forfeited by limitation. One of the obvious advantages of such a pawn-shop system is that, being a Government institution, no discredit necessarily attaches to the act of making use of the facilities which it offers. People in good circumstances, who are leaving the city for the summer, not infrequently take jewels and other valuables to the Mont de Pieté, or pawn shop, borrow a nominal sum on them and thus secure their safe-keeping with little expense.

BELGIUM.

MANAGEMENT AT BRUSSELS.

Consul-General Roosevelt says that the Brussels Mont de Piété was established in 1810, since which date it has exercised its functions without interruption. The legal rate of interest charged on loans is 6 per cent per annum. It is the intention of the administration to apply for authorization to reduce this rate to 3 per cent per annum for loans less than 5 francs (96 cents).

The administration of the pawn-shop system in Brussels is somewhat similar to that in Paris. The mayor of the city is by right president of the board when he attends its meeting. The pawn shops in Belgium are organized under the direction of the communal council, which approves the budget and accounts. These shops are not allowed to receive money on deposits, or as investment, or under any form whatever from private parties. When the funds run short the administration has the right to borrow from the public charities and hospitals, or from the communal administration, paying for such loans an annual interest of 3½ per cent. During the year 1905 the establishment loaned on 312,794 pledges $1,253,173. The net profit for the year was $6,401. The Brussels pawn shop is under the management of three appraisers and other officers. It is obligatory that one of the three appraisers must be an expert gold and silver smith. The officers are obliged to keep a daily record of the transactions of their respective departments, which are collected and compared daily before the evening closing. The records of the redemption office are constantly verified and balanced with the receiver's books in such manner as to avoid error. Sales are public and periodical, but no object can be sold until the expiration of fourteen months from the time it was pawned. Surplus not claimed within two years after the sale reverts to the establishment.

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RUSSIA.

MONEY LOANED ON CHATTELS.

Vice-Consul-General Mueller, of St. Petersburg, reports that there are six institutions loaning money on chattels at a rate of interest stipulated by their by-laws, as follows:

(1) The State Loan Office (controlled by the central government). The rate of interest is 6 per cent per annum. Only gold, silver, precious stones, and valuables are accepted here. Such articles are also taken for safe-keeping at a low rate of interest for storage and insurance. (2) Society for pawning chattels. (3) St. Petersburg Company, for storage and pawning chattels and goods. (4) St. Petersburg City Loan Office. (5) St. Petersburg Private Loan Office. (6) St. Petersburg Municipal Loan Office, organized in 1898. Paid-in capital, 2,000,000 roubles—about $1,000,000.

In 1904 the loans aggregated $1,753,550, of which sum $1,569,065 was repaid. Goods unclaimed were sold at public auction. The net profit on the transactions of 1904 was about $37,251. The interest charged is 6 per cent per annum.

LEATHER.

ALLEGED ADULTERATION.

ASSERTION OF ENGLISH TANNERS AGAINST AMERICAN SOLE LEATHER.

The London Times recently published an article entitled "Adulteration of American sole leather," in which it stated:

For some considerable time past, and certainly during the past twelve months, users of leather have become keenly aware of the reprehensible practice of leather adulteration, which shows no sign whatever of abatement so far as certain American tannages are concerned, but rather the reverse. This subject was somewhat extensively dealt with in these columns on June 19, 1905, when it was shown that English upper leather, Australasian sides, etc., were not absolutely free from adulteration. Since that time the Tanners' Federation has decided to take up energetically this matter of adulteration, with a view to proving to the boot manufacturer the extremely poor wearing and water-resisting qualities of the somewhat lower-priced American sole leather. The federation obtained samples which fairly presented the general run of the imports of sole leather from America, in order to ascertain to what extent American sole leather coming into this country was adulterated. Eighteen samples were collected, embracing the well-known and largely used tannages. These were all cut from the same part of the hide, and as far as possible from the same weight of side, and sent, under letters, some to Dr. J. Gordon Parker, Herold's Institute, London, and some to Dr. Andrew Turnbull, Liverpool, chemist of the federation. The results of these analyses are now forthcoming and show that the average amount of weighting matter in the eighteen samples was as follows: Epsom salts, 2.03 per cent, and crude glucose, 7.84 per cent; total weighting matters, 10.16 per cent.

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WHAT AN ENGLISH CHEMIST FOUND.

Doctor Turnbull determined the amount of tanning and other matter which could be washed out of the disintegrated leather by cold water, and found that the soluble portion varied from 18.42 to 33.2 per cent. Doctor Parker, in addition to analyzing his portion of the samples, also carried out water-penetration tests with six of the samples. Each sample was subjected to a column of water 12 inches high and 2 inches in diameter. The time required for the water to penetrate completely through the leather was as low as forty minutes in one case and as high as fifty-five hours in another.

One of the samples of American leather was an exceptionally bad one, containing 30 per cent of adulterants. If this is taken as exceptional and excluded, the 17 remaining samples still give the high average of 7 per cent of added glucose and 2 per cent of epsom salts. The analysis of the samples showed that, compared with certain English tannages, they were not very heavy weighing, but then they are usually very much undertanned, and the shortage of tanning matter is made up by the added adulterants, which, by noncombination, are washed out as soon as the leather comes into contact with water, leaving the soles soft and porous. Such leather may appear favorable in price compared with unadulterated leather, but the inferior value will speedily show by comparison when put to the tests of wear and water.

In publishing these results in their yearbook the committee of the Tanner's Federation do not imply that all English sole leather is free from adulterants, but so far as can be ascertained, it is safe to state that, generally speaking, English sole leather tanners do not weight their leather with foreign matter. American sole leather at one time enjoyed, and deservedly so, a very high reputation for wear and water-resisting qualities, owing to the then universal method of tanning with hemlock bark. The essential for sole leather in England is water resistance, and American exporters should in their own interests take the lesson to heart and revert to the old method of production.

ADMONITIONS TO MANUFACTURERS.

Consul Walter C. Hamm, of Hull, in a report calling attention to the action of the Tanners' Federation, described in the foregoing article from the London Times, explains that the report of the committee of investigation is printed in full in the Yearbook for 1906 of the Manchester, Liverpool, and District Tanners' Association. Consul Hamm also quotes from a private letter received from a Liverpool correspondent the following:

I hold that only a small portion of the sole leather coming here is adultered, and you can do no harm by calling attention on the other side to the fact that the action of a few "black sheep" is throwing doubt on all the American leather coming here, and you may rest assured that the English tanners will make the very most of this cry. The old-class hemlock sole was fine leather; this rotten, adulterated stuff won't hold the market long.

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The Tanners' Federation Yearbook gives the following table of the exports of sole leather from the United States to Great Britain, in quantity and value, for the past five years:

Year.	Pounds.	Value.	Great Britain's per cent of whole.	Value of total United States exports.
1901	28,641,881	$5,168,791	79	$6,577,732
1902	31,064,298	5,383,944	82	6,569,857
1903	32,675,444	5,885,284	85	6,920,467
1904	30,630,314	5,611,423	80	6,978,497
1905	24,090,449	4,449,410	47	9,144,873

As will be seen from this table the value of the importations of sole leather from the United States in the fiscal year ending June 30, 1905, is about 20 per cent less than in the previous year and smaller than in any previous year as far back as 1894. The high price of leather and the large home demand may have been one cause of this falling off, but doubtless the asserted deterioration in American sole leather was also a cause. These facts are important to both American tanners and leather dealers. If the asserted adulteration is true the fact should be known. If it is not true steps should be taken to correct the erroneous impression. It is sure to result in harm to American export trade in sole leather if allowed to go uncorrected.

AMERICAN LEATHER IN HOLLAND.

Vice-Consul-General Voorwinden, of Rotterdam, reports that having been requested by American leather manufacturers to ascertain the amount of American glazed kid imported by Netherlands shoe manufacturers, and not finding official or other statistics available on the subject, he addressed a leading importer of American leather of that consular district, who furnished the following information:

Up to three years ago the United States was the only country whence glazed kid was imported. At present the imports from the United States in the Netherlands are estimated at a value of $400,000 per annum. Germany has rapidly advanced in the manufacture of this article, and its manufacturers now produce considerable quantities of low grade black glazed kid, which find purchasers in the Netherlands. This competition from the side of German manufacturers is commencing to be very serious, as the value of the total annual importations of the German black glazed kid leather is already estimated at about $150,000. Besides, two manufacturers in Germany are now making a choice article of colored glazed kid, which for regularity and fineness of colors and selection is claimed by importers here to beat the same article manufactured in the United States. The value of the total imports of this superior article, together with trial shipments of black glazed kid made from France, England, and Austria, is estimated at $100,000. It is the opinion of Dutch importers that the importations of American glazed kid will not grow larger unless the manufacturers do their utmost to select their different grades more carefully than has been done heretofore.

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COMPLAINT FROM AUSTRIA.

DISAPPOINTMENT IN DEALINGS WITH AMERICAN FIRM.

Urbain J. Ledoux, consul at Prague, reports that he has frequently dwelt upon the unfortunate results of the seeming lack of confidence of American exporters in foreign buyers, due principally to a complete lack of system in securing the necessary credit information through the regular channels—the mercantile agencies and banking institutions. Mr. Ledoux continues:

With reasonable confidence—that is, confidence based on modern credit system—I have no doubt that our trade with Bohemia could be doubled inside of five years. This sounds extraordinary, but contact with the local importers will more than prove this statement. One of the largest leather importing firms in Bohemia has addressed the following letter of complaint to the writer in reply to his letter of inquiry:

Replying to your inquiry, our thirty years of experience with American imports are that there would be nearly twice as much business done with the United States if the American firms would do like the English firms—show more confidence in continental buyers. The English firms inform themselves and make trade easy, while most of the American firms stick to their old way, "cash against document," in which the European buyer is compelled to pay for the shipment without having seen the goods. Of course it is natural to expect that the goods are equal to samples, but this is not always the case, but just the contrary, sometimes, and even several times, as we can prove.

We will draw your attention to just one sample case: A New England party visited Europe showing samples of different kinds of leather. After promising a good deal, he induced us to give him small sample orders which after a long time he executed under the agreed terms, "cash against documents." Two small shipments were all right, while the third was not entirely correct. To our claim, the shipper answered that he would deduct the difference from next invoice; but the next larger shipment arrived without this deduction. We paid, and the shipper agreed to send us a check for the amount claimed, which was never done.

This last shipment, unfortunately, proved to be very contrary to sample. For instance, while the invoice states that the goods are with grain, as also shown by the samples from which the goods were ordered, the goods received were simply flesh splits of poor quality and of practically no use.

After much correspondence the shipper sent a note instead of a check, which he made payable at his office, which, upon repeated presentation, has not been honored. And inquiries have brought out the fact that this note will probably never be paid, as this shipper is unwilling to pay it, has no property (is simply a commission agent), and we have no redress.

Of course, against such people no law can be executed, and the foreigner who buys under these conditions—cash against documents—makes the experience that not everybody is to be trusted, and is consequently afraid to order under the above terms.

AMERICAN TOOLS ABROAD.

INCREASING DEMAND FOR TOOLS AND MACHINERY.

Exports of machinery and tools from the United States have been increasing rapidly. For nine months ending with March the exports of tools of certain classes were a million dollars in value in excess of the exports for the corresponding months a year ago, while saws increased over $100,000, cutlery nearly $150,000, firearms over $500,000, cash registers $300,000, electrical machinery $400,000, metal-working

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machinery $1,753,000, printing machinery $150,000, pumps and pumping machinery $1,220,000, sewing machines $1,000,000, locomotives $2,300,000, and so on with other articles under the head of machinery.

Lieut. Godfrey L. Carden, writing in Harper's Weekly, says:

Ten years ago one might have traveled the length and breadth of the Rhein provinces, the great iron and steel district of Germany, and in all the leading shops one would have found English tools. To-day all this is changed, and in lieu of English tools one finds now for all ordinary work German stock tools; but one also finds in nearly all the first-class establishments a group of American machine tools for the high-grade work—a silent tribute to the excellence of our outputs. I found machine tools from Providence, Hartford, Plainfield, Philadelphia, Wilmington, Cincinnati, Hamilton, Cleveland—in fact, from all the first-class American shops. I found no tools of the second or third grade make. If one would know which are the best American machine tools go to Germany. The German's know.

The American Exporter adds:

That is very true. However, it refers not only to Germany, but to almost every country of the Continent. During the year 1905 the exports of machine tools from the United States amounted in value to $5,625,044, as against $3,483,232 in 1904 and $3,316,088 in 1903. For many years the United Kingdom, Germany, France, Belgium, and Italy have been the largest buyers of American metal-working machinery of every description. There is scarcely a single up-to-date machine shop in Europe at present where some American machinery may not be found.

APPLE TRADE.

ALLEGED DECEPTION IN SHIPMENTS FROM UNITED STATES.

Consul-General Bordewich, writing from Christiania, says that deceptive methods are followed in sending apples to Norway. He reports:

American apples arriving here are, as a rule, packed in barrels holding from 140 to 150 pounds. Some of the fruit is shipped from England, Denmark, and Germany, while a portion comes direct by the Scandinavian-American line steamers from New York, Boston, or Philadelphia. The import duty on apples is 12 öre, equaling 3.2 cents per kilogram, or about $2.25 per barrel. American apples are in high favor with the people and if the trade is judiciously handled there is reason to believe it can be further increased. But the apples received at Christiania last season were, as regards several shipments, of very poor quality. The principal importers have joined in making a formal protest to this consulate, claiming that most of the fruit received by them was very poor, the barrels having a layer or two of fine fruit on top and bottom, but filled in between with fruit of nearly unsaleable quality. Unless these methods can be stopped the American fruit trade with this country will, in all probability, be seriously injured.

Apples are also brought here from Canada, Germany, Spain, and some other countries. This fruit is generally packed in shallow boxes and in baskets. This mode of packing has many advantages over barrels. Considering the fact that American apples by the time they

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reach the Norwegian consumer are very expensive, it would seem best if only choice fruit were exported. The freight, as well as the heavy import duty, is no more on a barrel of the best than on a barrel of the poorest kinds. Of inferior apples the Norwegian market is well supplied by fruit coming from the native orchards. It is the best American varieties of apples, well packed, large, sound, and attractive, that are in demand.

BELGIAN APPLES DETERIORATING.

Consul Liefeld, of Freiburg, Baden, transmits a clipping from the London Daily Mail concerning Belgian apples, which it is said display a marked decline in point of size, weight, and flavor. The article continues:

The quality is so rapidly diminishing that very soon they will only be suitable for stewing, and good table fruit will have to be sought for abroad. It is claimed that the best-known qualities of apples elsewhere owe their origin to Belgian seedlings and at one time Belgium was the veritable apple kingdom. But the fecundity of the Belgian apple tree has departed. The Californian varieties are now preeminent, having supplanted the aroma-lacking Belgian product. Even at the expense of less attention to pear culture an appeal is made to national sentiment not to allow the Belgian apple to vanish into oblivion.

DRIED APPLES IN JAPAN.

Consul-General Miller, of Yokohama, reports that the market for dried apples in Japan is extremely limited. He writes:

The natives are not consumers of this article, as the price makes it prohibitive for the common people. The new tariff places a duty on dried fruits of approximately $3.02 per 100 pounds. This, together with the first cost, makes the price out of reach, even if it were a desired article of diet, which it seems not to be. Dealers in this line advise me that importations here of dried apples do not amount to 1,000 pounds per annum. Green apples are raised in the northern part of Japan in considerable quantities, providing the home market and exporting considerable quantities to China and the Philippines. They are becoming so badly affected with apple scab that unless the growers take means to counteract this fungus their crops will soon become worthless.

NEW ELECTRIC LAMP.

CLAIMED IT WILL BURN THIRTY-FIVE HUNDRED HOURS.

Consul E. T. Liefeld forwards from Freiburg an abstract from a Paris newspaper concerning a new electric lamp, which it is said will revolutionize the present system of lighting. The article reads:

An Austrian chemist, Dr. Hans Kuzel, has, after many years' hard work, succeeded in constructing a new electric lamp, which he calls the Syrius lamp. As is well known, incandescent gaslight is cheaper than

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electric light, because the filament wires of the latter are very expensive and the glass bulbs soon wear out. Doctor Kuzel has now invented a new substitute for the glow-thread, by forming out of common and cheap metals and metalloids colloids in a plastic mass, which can be handled like clay and which, when dry, becomes hard as stone. Out of this mass very thin wire threads are then shaped, which are of uniform thickness and of great homogeneity. These two characteristics are of great value in the technics of incandescent lamps.

The Kuzel or Syrius lamp hardly needs one-quarter of the electric current which the ordinary electric lamp with a filament wire requires. Experiments, it is asserted, have shown that the lamp can burn for thirty-five hundred hours at a stretch. Another advantage is that the intensity of the light of the new lamp always remains the same, the lamp bulbs never becoming blackened, as is now the case. The new lamp, it is said, will be put on the market next autumn.

MUNICIPAL OWNERSHIP.

AN ENGLISH REPORT ON LOCAL GOVERNMENT IN GERMANY.

G. J. N. Rogers, of Local Government Board in London, has issued a special article on local government in Germany, compiled with exhaustive fullness. The following extract states the attitude of Germany toward the much vexed problem of municipal trading:

In most of the large towns the gas, water, markets, and electricity undertakings are owned and managed by the local authorities. As regards tramways, German towns are not quite so advanced as towns in England, but it is the evident intention of the communal bodies generally to obtain possession of that important means of communication whenever the opportunity offers. In addition to the undertakings mentioned, all towns of any size have their own savings banks, and most of them carry on the business of pawnbrokers. A large majority, too, possess municipal theaters and concert halls. A few own quarries; one (Görlitz) engages in the manufacture of bricks and tiles, owns a coal mine, and manufactures artificial stone. In connection with the ownership of communal forests, several towns deal in timber for building purposes and the supply of fuel. Harbors, docks, quays, and wharves are also owned by various towns.

In the opinion of many of its opponents, municipal trading should not be conducted with a view to profits. In Prussia this question is settled by the law. Section 3 of the Communal Taxation Law provides that "commercial undertakings of the communes shall be administered upon the principle that the income raised shall suffice at least to meet the whole of the expenditure arising from the communal undertaking, inclusive of interest and reduction of the invested capital. An exception is admissible so far as the undertaking serves at the same time a public need which is not otherwise met." The latter part of the provision refers to waterworks, markets, and similar undertakings; but these concerns are, as a general rule, to be so managed that no loss shall fall on the local taxes.

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TUBERCULOSIS.

EXPERIMENTS BY EXPERTS—POSITIVE RESULTS NOT ATTAINED.

Consul Dunning, of Milan, gives an interesting account of some experiments in the use of the Behring system of vaccination as a cure for consumption which have been carried on by a group of Italian experts:

Several oxen which had been vaccinated with the Behring treatment were slaughtered with other oxen which had been under inspection for some months, while others were allowed to continue in life in order to further develop the effects of the treatment. These animals were slaughtered in Milan some time later under the direction of the physicians interested in the earlier experiments. Of four oxen killed, three had been vaccinated with the Behring treatment and afterwards had the tuberculosis virus injected into their veins. The autopsy, while it did not show definite results, gave encouragement to the investigators. The ox which had not been vaccinated showed tuberculous conditions in a marked degree, while the three which had been subjected to the treatment had remained immune and had resisted successfully, unless unknown conditions affected the result, the several injections of virus intended to test the potency of the vaccination.

BELIEVE METHOD WELL FOUNDED.

The experts engaged on the test announce that at least two of the three oxen showed results which seem to indicate that this method for treating tuberculosis is at any rate well founded, though they expressly add that very much remains to be done. Other cattle will soon be killed for further experiments when the treatment they are undergoing has progressed to a more useful stage. The most important tests in the cure of consumption in human beings which have been undertaken in Europe for some years are now going on in several wards of the famous "Ospedale Maggiore" (The Great Hospital), under the direction of Dr. Giuseppe Carcano, one of the most active of the younger practitioners of northern Italy. Using a serum which has already had a good trial in Belgium and France, Doctor Carcano made a special study of the subject in several countries of Europe, and became so encouraged that he decided to take up experiments with human beings on his own account.

RESULTS NOT YET DEFINITE.

A number of consumption patients from Doctor Carcano's private practice, suffering with varying forms and degrees of the disease, were moved to the hospital and placed in reserved wards. Some of the results have been "brilliant" in the language of one experimenter. "One of them," says the principal newspaper of Milan in commenting editorially on the tests, "was of a truly miraculous character." Other doctors called in to observe or assist in the experiments have remarked upon the simplicity of the treatment. The consul urges upon every reader of this report who may have any special interest in the matter

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the need of accepting all such information with a measurable amount of reserve; and he is moved to this word of caution by the great number of letters sent to him from America by sufferers and their friends who had read in the newspapers of sundry experiments on a similar line in Italy and other countries. The Milan consulate reported during 1905 on the efforts of Professor Levi of this city to check or cure consumption by injecting a preparation of which iodine is the principal component. These experiments are apparently in abeyance for the time. Professor Levi's most recent statement on the subject, transmitted to the Department of State by the consulate at the time of its issue, disclaimed any extraordinary results and merely expressed the hope that he was on the right track.

ANXIOUS FOR TESTS.

The Carcano tests have apparently carried the matter further than any similar effort has been able to go. Doctor Carcano stated to the consul he felt reasonably sure that in many cases he could absolutely cure consumption, because cures had already resulted from the use of the serum which he has adopted. While not making too sweeping a claim, he is anxious to have the treatment tested in as many countries and by as many persons as possible.

The serum is about to be placed at the disposal of physicians and others in a form convenient for use during a period long enough to test its value. It is injected into the veins of the patient in the ordinary way by means of the hypodermic syringe. Inquirers should address Doctor Carcano, who uses English, directly. Meantime, the hospital tests are continuing, under the patronage of the foremost of the Milanese physicans. Further developments will be reported by the consul.

DOCTOR BEHRING'S EXPERIMENTS.

Consul-General Thackara, of Berlin, responds to a request from Mississippi for information regarding the treatment of tuberculosis perfected by Dr. Emil von Behring, the discoverer of antidiphtheritic serum, which was the subject of his lecture in Paris, October 7 last. The consul-general writes:

The professor informs me that he is not in a position at this time to furnish his preparation for the treatment of human beings until the experiments which he is now making on animals have been completely terminated, which will probably be not until the end of 1906. He is not prepared to make his discovery public, because, although he is theoretically certain of the value of his remedy, he has not made a sufficient number of experiments to ascertain the exact dose required. Moreover, if he distributed the remedy to veterinary surgeons for experiments with cattle he could not prevent physicians from securing it and making experiments on human beings. Professor Behring's address is: Institut für Hygiene und Experimentelle Therapie Marburg, Hessen-Nassau, Germany.

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The above consular reports were until July, 1903, issued by the Bureau of Foreign Commerce of the State Department; from that date until June, 1905, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the State Department was consolidated July 1, 1903; since July 1, 1905, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, the subjects of which the special reports treat, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of the reports on special subjects, in separate form, was begun in 1890. Those of the following titles are now available for distribution:

Vol. 2 (1890 and 1891).—Olive Culture in the Alpes Maritimes.
Vol. 15 (1898).—Part I. Soap Trade in Foreign Countries; Screws, Nuts, and Bolts in Foreign Countries; Argols in Europe; Rabbits and Rabbit Furs in Europe; Cultivation of Ramie in Foreign Countries.
Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries; Market for Ready-Made Clothing in Latin America; Foreign Imports of American Tobacco; Cigar and Cigarette Industry in Latin America. Part II. School Gardens in Europe.
Vol. 23 (1901).—Part I. Gas and Oil Engines in Foreign Countries. Part II. Silver and Plated Ware in Foreign Countries.
Vol. 24 (1902).—Creameries in Foreign Countries.
Vol. 25 (1902).—Stored Goods as Collateral for Loans.
Vol. 26 (1903).—Briquettes as Fuel in Foreign Countries.
Vol. 27 (1903).—Markets for Agricultural Implements and Vehicles in Foreign Countries.
Vol. 29 (1904).—Macaroni Wheat in Foreign Markets.
Vol. 30 (1904).—Emigration to the United States.
Vol. 32 (1904).—Foreign Markets for American Fruits.
Vol. 33 (1905).—Industrial Education and Industrial Conditions in Germany.
Vol. 36 (1905).—Foreign Markets for American Cotton Manufacturers.
Vol. 37 (1905).—Machine-Made Lace Industry of Europe.
Vol. 38 (1905).—Insurance in Foreign Countries.
Reports of Special Agents:
Trade Conditions in Brazil.
Trade Conditions in China.
Trade Conditions in Cuba.
Trade Conditions in Japan and Korea.
Trade Conditions in Mexico.
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VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of the United States Mint and published by the Secretary of the Treasury, April 1, 1906.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U.S. gold, 1905.	Coins.
Argentina	Peso	$0.96,5	Gold—argentine ($4.82,4) and ½ argentine; silver—peso and divisions.
Austria-Hungary	Crown	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns.
Belgium	Franc	.19,3	Gold—10 and 20 francs; silver—5 francs.
Brazil	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British N. A. (except Newfoundland).	Dollar	1.00	
British Honduras	....do	1.00	
Chile	Peso	.36,5	Gold—escudo ($1.825), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor ($9.647) and double condor; silver—peso.
Costa Rica	Colon	.46,5	Gold—2, 5, 10, and 20 colons ($9.30,7); silver—5, 10, 25, and 50 centisimos.
Cuba	Peso	.91	Gold—doubloon ($5.01,7); silver—peso (60 cents).
Denmark	Crown	.26,8	Gold—10 and 20 crowns.
Ecuador	Sucre	.48,7	Gold—10 sucres ($4.8665); silver—sucre and divisions.
Egypt	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland	Mark	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86,6¼	Gold—sovereign (pound sterling) and half sovereign.
Greece	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti.*	Gourde	.96,5	Silver—gourde.
India	Pound sterling[a]	4.86,6¼	Gold—sovereign (pound sterling); silver—rupee and divisions.
Italy	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen	.49,8	Gold—1, 2, 5, 10, and 20 yen.
Liberia	Dollar	1.00	
Mexico	Peso	.49,8	Gold—5 and 10 pesos; silver—peso and divisions.
Netherlands	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Dollar	1.01,4	Gold—$2 ($2.02,7).
Norway	Crown	.26,8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2½, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86,6¼	Gold—libra ($4.8665); silver—sol and divisions.
Philippine Islands	Peso	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble	.51,5	Gold—imperial ($7.718) and ½ imperial ($3.859); silver—¼, ½, and 1 ruble.
Spain	Peseta	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown	.26,8	Gold—10 and 20 crowns.
Switzerland	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Uruguay	Peso	1.03,4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

COUNTRIES WITH FLUCTUATING CURRENCIES.[b]

Country and monetary unit.	July 1, 1905.	Oct. 1, 1905.	Jan. 1, 1906.	Apr. 1, 1906.	Country and monetary unit.	July 1, 1905.	Oct. 1, 1905.	Jan. 1, 1906.	Apr. 1, 1906.
Bolivia:	*Cts.*	*Cts.*	*Cts.*	*Cts.*	China—Continued.	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Silver boliviano	42.2	44.1	46.5	47.8	Hongkong dollar	.....	.....	50.2	51.5
Central America:					Kiaochou	.....	.....	75.3	77.3
Silver peso	42.2	44.1	46.5	46.5	Nankin tael	68.4	71.6	75.5	77.5
China:					Ningpo tael	64.8	.....	73.3	75.3
Amoy tael	69.1	72.4	76.3	78.3	Newchwang tael	66.4	67.9	71.5	73.4
Canton tael	68.9	72.2	76.0	78.1	Peking tael	67.4	70.6	74.3	76.3
Chefoo tael	66.1	69.2	72.9	74.9	Shanghai tael	63.1	66.1	69.6	71.5
Chinkiang tael	67.5	70.7	74.5	76.5	Swatow tael	63.8	66.9	70.4	72.3
Fuchau tael	63.9	66.9	70.5	72.4	Takau tael	69.5	72.8	76.7	78.8
Haikwan (customs) tael	70.3	73.6	77.6	79.7	Tientsin tael	67.0	70.1	73.9	75.9
Hankow tael	64.7	67.7	71.3	73.3	Persia:				
Hongkong tael	(c)	(c)	(c)	(c)	Silver kran	7.8	8.1	8.6	8.8

[a] The rupee, $0.3244, 15 to the sovereign, constitutes the money of account.

[b] The coins of silver-standard countries are valued by their pure silver content at the average market price of silver for the three months preceding the date of the circular issued by the United States Treasury Department.

[c] The "British dollar" has the same legal value as the Mexican dollar in Hongkong and Labuan.

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DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY CONSULAR AND TRADE REPORTS

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MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C. JUNE, 1906 No. 309

CENTRAL AMERICA.

PRESENT AND PROSPECTIVE TRADE.

FOREIGN COMMERCE OF THE SIX STATES UNITED STATES LEADS IN IMPORTS.

Special Agent Lincoln Hutchinson, writing from Corinto, Nicaragua, April 28, furnishes interesting material in regard to the people and commerce of the six States constituting the geographical division known as Central America. He writes:

The geography of the six Central American States is so well known as to call for little comment in this place. In order, however, to understand certain features of the commercial development of these countries, it is necessary to emphasize one or two points which are sometimes overlooked. The six States of Guatemala, Honduras, British Honduras, Salvador, Nicaragua, and Costa Rica together form a long narrow strip of land extending from southeast to northwest over a distance of some 800 miles. The width varies from about 60 miles to over 300; and the total area is estimated at 176,927 square miles, or somewhat larger than our State of California. So far as mere latitude is concerned, this entire section is tropical, the northernmost point being in about 18 and the southernmost in about 8 degrees north latitude. But throughout the entire length runs a backbone of mountains rising more or less abruptly from the coast, reaching in places altitudes of 10,000 or 12,000 feet, inclosing many plateau regions, and greatly tempering the climate of much of the interior.

OBSTACLES TO TRANSPORTATION.

Probably the most important effect commercially of the presence of this mountain backbone is the difficulty which it presents to transportation between the two coasts or from either coast into the interior. The lowest pass from coast to coast is in Nicaragua, with an elevation of between 100 and 200 feet. In the other countries far greater altitudes have to be overcome; in Costa Rica, for example, over 4,000 feet, and in Guatemala nearly 5,000. These altitudes have prevented the construction of railways from coast to coast, and have maintained a sort of commercial separation between the west and the east slopes of the countries. The western slope belongs still to the commercial

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sphere of the Pacific and the eastern to that of the Atlantic. There is at present no railroad crossing the whole of the very short distance from the Atlantic to the Pacific side. In some cases such roads have been begun and have been pushed a greater or less distance from one side or the other or both, and in one or two cases, as in Costa Rica and in Guatemala, there are prospects of an early completion. In the main, however, the economical passage of goods from the one coast to the other is at present an impossibility; and even in districts near either coast the transportation of goods is a costly and uncertain affair. Ox carts or pack animals are the burden bearers, and many of the roads, which are bad enough even in the dry season, become virtually impassable during the rainy months. This commercial separation of the two coasts has important practical consequences, which will be discussed more fully in another place.

POPULATION AND COMMERCE.

The population of the six States is, in general, very sparse, the total number of inhabitants being estimated at about 4,100,000. This population is, however, very unevenly distributed. The smallest of the six States, Salvador, with an area of but 7,225 square miles, has a population density of 140 per square mile, while the largest, Nicaragua, with an area of 49,200 square miles, shows a density of only 8.5 per mile. In both area and population British Honduras is insignificant (7,562 square miles and about 37,000 inhabitants), but her nearest neighbors, Honduras, Guatemala, and Salvador, constituting the northern half of Central America, form the most important group among the six States. The combined area of these three is about one-half of the total area of the six, but their population is 80 per cent of the total.

The commercial activity of the people as a whole is not great. The total imports of the six countries probably reach a value of about $16,000,000 per annum, or a little less than $4 per capita. The exports are estimated at $26,000,000, or a little more than $6 per capita. But in this respect again we find great differences. Costa Rica is the most active in proportion to population, her export and import trade together reaching nearly $30 per capita. The others are far behind, except British Honduras, whose commercial statistics are, however, swelled by a large transit trade and are therefore misleading. The exports and imports of Nicaragua reach a value of about $10 per capita; of Guatemala, $9; Salvador, $7, and Honduras $6.30.

Three of the countries in question have been going through a period of commercial depression in the past two or three years, due, in part at least, to poor crops of coffee combined with low prices in the world market. Those most affected have been Guatemala and Honduras. Nicaragua has suffered in less degree, at least so far as the effect on foreign trade movement has been concerned. Costa Rica has felt the coffee depression less than any of the others, because of the development there of another great industry, banana raising. Thus we find that in some sections foreign trade has declined in recent years while in others it has grown rapidly. It is probable that the growing sections represent the more normal condition of the whole, for where decline has taken place it can be traced to causes which are mostly of temporary character. The countries all have great resources, new investments of foreign capital are taking place, and new enterprises are being developed. It is safe to assume that the next few years will see a fairly rapid growth of trade in all the countries.

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UNITED STATES LEADS IN IMPORTS.

The imports of Central America are such as are always characteristic of countries whose industries are chiefly extractive: Textiles, implements, tools, machinery, and food stuffs. In this respect Central America does not differ materially from most of the countries of South America. It does differ from them, however, in that the United States holds the lion's share of the trade. Taking the six countries as a whole, it is probable that the United States supplies at least 50 per cent of their total foreign purchases, and our trade is growing in most satisfactory manner except in the countries which have been suffering commercial depression. Commercial statistics in most of the six countries are either entirely lacking, or are incomplete or unreliable, so that comparisons must be made by employing the export statistics of the countries which supply the goods sent to Central America. The three principal competitors for the trade are the United States, England, and Germany, and their export statistics are shown in the annexed table. The figures represent average annual values for the five-year periods, given in thousands of United States dollars:

To—	From— United States.		England.		Germany.	
	1895–1899.	1900–1904.	1895–1899.	1900–1904.	1895–1899.	1900–1904.
Costa Rica	1,178	1,688	836	664	350	347
Guatemala	2,183	1,214	1,519	952	493	452
British Honduras	511	813	374	313	.....	.....
Honduras	667	1,057	212	258	[a] 445	619
Nicaragua	1,005	1,405	826	674		
Salvador	1,163	794	1,421	1,071		

[a] Three years, 1897–1899.

For the United States the comparison is made between the average exports per annum for five years, 1895–1899, and the five years 1900–1904; for England, five years, 1894–1898, with five years, 1899–1903, and for Germany, three years, 1897–1899, with five years, 1900–1904.

It will be noticed that the United States stands first in all of the countries except Salvador. England takes second place, except in Salvador, where she leads, and Germany stands third. In Costa Rica, Honduras, British Honduras, and Nicaragua we have made great gains, and although we have lost in Guatemala and Salvador, the decline is simply a part of a general decline in the trade of those countries.

EXTRACTIVE INDUSTRIES.

It has already been explained that the industries of these Central American States are chiefly extractive. The products are mainly tropical in character, although in the uplands some few commodities common in temperate climates are also exploited. Manufactures in any broad sense of the term are wholly lacking, but in some of the towns small industries, such as beer brewing, ice making, the manufacture of matches, of furniture, etc., are to be found. The demand for foreign implements, tools, machinery, etc., is therefore connected almost wholly with the development, not of these embryo manufactures, but of the forest and agricultural industries and the exploitation of the mineral deposits which are found in some districts.

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The character of the chief industries, as well as the lines of future development in all of the countries, is perhaps best illustrated by analyzing the course of trade and industry in one of them which, as already stated, has developed the greatest commercial activity—Costa Rica. It is the more satisfactory to do this, as the statistical department of that Republic has developed a high degree of efficiency which makes it possible to obtain very complete data.

COSTA RICA.

INCREASE IN FOREIGN TRADE.

CHARACTER AND PROPORTION OF EXPORTS—COFFEE, BANANAS, WOODS, AND HIDES.

The chief exports of Costa Rica are coffee and bananas, these two items together making up over 90 per cent in value of all shipments abroad. Hard woods, hides, and small quantities of precious metals supply the major part of the remaining 10 per cent. In the other five countries the exports comprise nearly the same list but in different proportions. In most of them coffee occupies the leading place, while in Costa Rica bananas have risen to a point of equality with coffee and bid fair soon to surpass it. The value of coffee exports has remained nearly stationary during the past ten years; in 1896 it was $4,310,000, in 1905 only $3,774,000. Banana exports, on the other hand, have grown with astonishing rapidity from $565,000 in 1896 to $3,648,000 in 1905. The market for Central American bananas is extending rapidly, the last few years having seen large sales in England, and it is certain that the success of the industry in Costa Rica will stimulate the development of the banana lands of the other five countries.

THE IMPORTS BY COUNTRIES.

The decline in the value of coffee exports from Costa Rica has been more than offset by the increase in banana exports, and the total value of shipments of all commodities to foreign countries has, therefore, increased from $5,333,000 in 1896 to $8,148,000 in 1905. And this growth in exports has naturally been accompanied by a development of the import trade through general increase of purchasing power as well as through the increased demand for the paraphernalia needed by the expanding industries. In this growing import trade the United States has played a more and more important part, as is well illustrated by the following table showing the percentage of imports from principal countries.

Year.	England.	United States.	Germany.	France.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*
1894	32.03	34.59	19.21	7.79
1897	26.92	33.64	21.01	10.00
1898	19.61	44.80	15.50	10.80
1899	19.60	54.00	14.55	5.90
1900	27.30	46.50	13.59	5.94
1901	21.83	46.77	13.50	5.43
1902	23.94	54.08	12.47	5.25
1903	21.57	50.20	11.07	6.47
1904	19.27	52.20	12.50	4.60
1905	19.73	46.88	12.90	5.24

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The share of the United States has increased from a bare superiority over that of England to an excess of some 9 per cent over England, Germany, and France combined.

COMMODITIES FROM THE UNITED STATES.

The general character of the import trade of Costa Rica, and to a large extent of that of the other Central American countries as well, is well illustrated by the following figures compiled from the import statistics for the year ending December 31, 1905, showing the principal imports into Costa Rica in 1905, with percentage of each coming from the United States:

Class of goods.	Total.	From United States.	Percentage from United States.
Textiles	$1,171,159	$243,674	20.8
Food stuffs, including breadstuffs, provisions, wines, etc.	1,070,262	670,882	62.7
Iron and steel, and manufactures of	777,336	525,078	67.5
Paints, pigments, dyes, etc	157,690	92,577	58.7
Chemicals, drugs, medicines, etc	147,306	66,401	45.1
Paper, and manufactures of	111,330	31,814	28.6
Tobacco, and manufactures of	100,899	66,684	66.5
Carts, carriages, etc	73,398	71,889	97.9
Leather, unenumerated	76,874	55,126	71.7
Lumber	66,137	65,738	99.4
Coined money	501,601	501,601	100.0
All other articles	985,425	314,599	31.9
Total	5,239,477	2,706,063	46.9

The above table gives a sufficiently clear idea of the chief classes of commodities imported into Costa Rica from the United States, but a more important question remains—the growth or decline of our trade in specific articles. The following table throws light on this point. It gives annual average values of the principal exports from the United States for the five-year periods stated, the values being in thousands of United States gold dollars:

Articles.	1895–1899.	1900–1904.
Textiles	113.4	202.4
Foodstuffs, including breadstuffs, provisions, wines, liquors, etc	405.0	491.0
Iron and steel, and manufactures of	188.0	342.0
Tobacco, and manufactures of	56.2	68.6
Wood, and manufactures of	50.6	122.6
Chemicals, drugs, medicines, etc	41.2	47.8
Leather, and manufactures of	22.4	34.4
Scientific instruments and apparatus	19.4	39.0
Oils	19.2	30.8
Carts, carriages, other vehicles, and parts	18.0	51.2
Paper, and manufactures of	17.4	24.0
Paints, pigments, and colors	2.6	4.6

In all of these, and they form the bulk of American trade with Costa Rica, there has been marked increase. There are, however, certain small items (some of them included in one or another of the above groups) in which our trade has declined. The more important of them are:

Articles.	1895–1899.	1900–1904.
Live animals	9.2	8.9
Books, maps, engravings, etchings, etc	7.4	4.8
Fish	21.6	16.0
Wines, spirits, and liquors	44.6	29.2
Paraffin and paraffin wax	26.2	23.0
Perfumery and cosmetics	4.6	3.4
Vegetables	15.6	15.0

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INCREASES AND DECREASES.

The decline in our exports of live animals seems to be merely a part of a general decline in purchases of such animals. Larger numbers are being raised within the country itself and in the neighboring republics, and it is not probable that any considerable supplies will be brought from the United States. The demand must be confined to a few animals for breeding purposes.

Books, maps, engravings, etchings (of which the largest item is books) do not present a very promising field for American exporters. American illustrated papers, chromos, lithographs, etc., have a certain sale, but books imported are of course printed chiefly in Spanish or French, and American publishers, with a rather limited market for works in those languages, can hardly compete with Spanish, French, and German houses.

In fish the United States continues to hold the larger part of the market in spite of the decline. The falling off is difficult to explain. It seems likely to be only temporary, though Spain, France, Germany, and Italy are sending considerable quantities, especially of sardines and canned shell fish.

In perfumery and cosmetics the share of the United States is small at best. France is the chief source of supply and seems likely to remain so.

The falling off in our sales of vegetables is so slight as to be of little significance. The same can not be said, however, in regard to the decline in our sales of wines, liquors, etc. A few years ago there were indications that we were building up a fair trade in these goods, especially in wines. The foothold then obtained seems now to have been lost in favor of Portugal, Spain, and France.

HONDURAS.

AMERICAN COMMERCE LEADS.

EXPORTS AND IMPORTS—SHARE OF THE UNITED STATES MORE THAN ONE-HALF.

Writing from Amapala, May 1, Special Agent Lincoln Hutchinson describes the commerce of Honduras. An examination of the figures shows the United States occupies a prominent position in the Honduras trade. Of the total imports for the year 1905, 50 per cent came from the United States, and of the exports, which were double the value of imports, the share of the United States was about four-fifths. Mr. Hutchinson's letter follows:

The Statistical Office of the Government of Honduras has recently prepared a statement of the foreign trade of the country for the last fiscal year, ending July 31, 1905. The figures are of considerable interest, as emphasizing the preponderance of the United States in the commerce of this Republic.

The total imports of the country for the year were valued at $2,362,760, and of this amount the United States furnished $1,689,900,

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or over 70 per cent. The exports were more than twice as large as the imports ($5,564,003), the United States taking $4,622,700, or more than 80 per cent. The share of other countries is shown by the following table:

Country.	Imports.	Exports.	Country.	Imports.	Exports.
United States	$1,689,900	$4,622,700	Japan	$1,800	.....
England	212,800	85,500	Guatemala	1,600	$130,000
Germany	185,000	217,400	Cuba	900	391,100
British Honduras	95,000	74,400	Panama	200	1,300
France	66,500	3,600	Costa Rica	.....	3,800
Nicaragua	56,600	15,500	All others	15,000	.....
Spain	21,300	.....			
Salvador	8,400	18,600	Total	2,362,800	5,564,000
China	8,000	.....			

The principal items of export are the various natural vegetable products of the country, these reaching a value of $2,593,700. Mineral exports were valued at $1,998,700, and animal at $909,000. Among the vegetable products exported bananas are by far the most important, the total value of shipments being $2,078,400. Cocoanuts come next, with $210,900; then hard woods, with $128,100; rubber, with $83,900; coffee, with $52,700, and sarsaparilla, $30,000.

The chief mineral export is copper, $1,154,000; gold and silver make up most of the balance, $813,700. The only important animal products exported are cattle, $595,600, and hides and skins, $298,000.

POSITION OF THE UNITED STATES.

The report from which the above figures are compiled illustrates the great strength of the United States in the markets of Honduras, but it fails to reveal the equally important fact that the commanding position of the United States has been attained only in recent years. Ten years ago the sales of the United States to Honduras were not only much smaller in absolute amount, but they constituted a far less important share in the total purchases of that country. And the increase has shown itself not merely in one or two classes of goods, but in nearly every important item of our trade. The following figures illustrate the development of exports from the United States to Honduras, values being stated in thousands of dollars. The figures represent annual averages for two five-year periods stated:

Class of goods.	1895–1899.	1900–1904.
All food stuffs, including breadstuffs, provisions, wines, liquors, etc	131.6	220.3
Cotton goods	181.4	278.9
Iron and steel, and manufactures of	97.6	151.1
Chemicals, drugs, medicines, etc	35.4	51.3
Explosives	21.7	42.9
Quicksilver	43.3	47.9
Wood, and manufactures of	20.0	38.9
Leather, and manufactures of	14.7	33.2
Sugar and molasses	14.4	20.4
Oils	16.5	19.1
All goods	667.2	1,057.2

The only goods showing a decline between the two periods are a few unimportant ones: Scientific instruments and apparatus, $5,700

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to $4,500; notions, $2,300 to $1,900; soap, $8,100 to $6,600, and bottled wines, $2,100 to $1,400.

Besides the foregoing more important classes of goods are many others which show a similar increase—paper, candles, cars, carriages and other vehicles, coal, earthen and china ware, glassware, rubber manufactures, lamps and chandeliers, matches, oilcloths, paints, etc., perfumery and cosmetics, manufactures of straw and palm leaf, tinware, etc. The rapid rise of the United States to the controlling position in the commerce of Honduras is but one of many illustrations of what our exporters may do in time in many parts of Spanish America.

GUATEMALA.

GRADUAL TRADE RECOVERY.

RECENT GROWTH IN FOREIGN TRAFFIC—INCREASED IMPORTATIONS FROM THE UNITED STATES.

The foreign trade of Guatemala, and the share which each of the principal competing countries has in it, are given in the following letter from Special Agent Lincoln Hutchinson, which was written from Champerico May 11:

In a previous report mention was made of the fact that Guatemala has in recent years been passing through a period of commercial depression, which has reduced the purchasing power of the country to considerably below what it was ten years ago. A period of prosperity and speculation, culminating in 1898, was followed by collapse, and the falling price of the staple product of the country—coffee—has greatly hindered recovery. The severity of the crisis is well illustrated in the commercial dealings of Guatemala with foreign countries. In 1897 the United States sent to Guatemala goods to the value of $2,992,000; in 1898 this figure dropped to $1,163,000, and in 1900 to $765,000. England in 1896 sent $2,000,000 worth; in 1899, $640,000. Germany in 1897, $800,000; in 1898, $440,000; and in 1899, $250,000. The lowest ebb of the import trade was reached in 1899 and 1900. Since then there has been a gradual recovery, hindered, as already stated, by the low price of coffee, yet sufficiently marked to give promise that the country's trade will soon return to the position it had reached before the crisis.

The official figures of imports for the year 1904 showed considerable increase over previous years. Those for 1905, which have just been published by the Guatemalan Government, exhibit still further advance. Beginning with the years immediately following the crisis the figures are shown in the annexed table, which represent annual average values for the three-year periods stated and for 1904 and 1905, separately.

Year.	Imports.	Exports.
1899–1901	$3,714,500	$7,761,100
1902–1904	4,009,900	7,767,400
1904	5,041,100	7,651,900
1905	6,844,400	8,287,800

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COMMERCIAL CONDITIONS UNSETTLED.

The country is still far from having returned to a sound commercial condition. Its trade is still much below the figures of ten years ago, confidence is still weakened by the existence of a depreciated and fluctuating currency and by rumors of revolution, and coffee prices still remain low. Yet the increase in trade, the improved quotations of Guatemalan securities held abroad, the resumption of work on several public and semipublic undertakings, such as the Northern Railway, and several other factors, seem to indicate that the worst is over. Throughout the period of depression the commerce of the United States with Guatemala has suffered in common with that of other countries, but in less degree, and to-day, although our trade is smaller than it was ten years ago, our share in the total is larger.

EXPORTS AND IMPORTS BY COUNTRIES.

The annexed tables show the average annual values of exports and imports for the eleven years ending with 1904 and for the year 1905, between Guatemala and the United States, England, Germany, and France:

Imports.

From—	1894–1904.	Per cent of total.	1905.	Per cent of total.
United States	$2,125,300	36.6	$3,067,000	44.8
England	1,222,700	22.6	1,570,100	22.9
Germany	1,151,000	20.0	1,408,500	20.6
France	534,700	9.2	269,500	3.9

Exports.

To—	1894–1904.	Per cent of total.	1905.	Per cent of total.
United States	$2,166,600	25.9	$2,875,300	34.9
England	1,287,400	15.4	1,050,500	12.8
Germany	4,506,000	53.8	4,078,600	49.5
France	201,300	2.4	25,300	.3

French trade with Guatemala has sunk almost into insignificance; English and German have remained nearly stationary, with a slight increase in their share of the imports and some decline in their share of the exports, while that of the United States has increased in both respects. Our share in the import trade in 1905 was nearly as large as England's, Germany's, and France's, combined.

GROWTH OF IMPORTS.

It is a common statement that American exports to Guatemala consist chiefly of foodstuffs, and I have repeatedly been told by persons here supposedly familiar with the facts that the reason for the recent increase in American trade is the shortage of Guatemalan maize crops, which has made necessary the purchase of foreign supplies. An examination of the figures proves this to be but partial truth. It is true

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that food stuffs constitute the largest single item in our exports to Guatemala; it is likewise true that a very considerable part of the increase in Guatemala's imports in 1905 consisted of these same goods, but these facts tell but part of the tale, for there are other extremely important items in our trade with Guatemala which show similar increase with foodstuffs. In 1905, when Guatemala's purchases of foodstuffs from the United States were abnormally large, they formed only about 35 per cent of her total purchases from us; at least an equal percentage is made up of sundry manufactured goods, of which the chief are iron and steel and textiles. On the other hand, the growth in Guatemalan imports is in many lines of goods which offer us a market. The shortage of the Guatemalan maize crop affected mainly the importation of breadstuffs, the increase for the year being $558,000 (from $450,000 in 1904 to $1,008,000 in 1905), but other increases are scarcely less significant, as will be seen from the following:

Articles.	1904.	1905.
Other foodstuffs	$168,000	$409,000
Iron and steel	176,000	422,000
Textiles	1,249,000	1,467,000
Glassware and porcelain	17,000	48,000
Coal	49,000	69,000
Tallow	39,000	73,000

There were many other smaller items.

In most of these classes of goods in which Guatemalan purchases have made marked gains, the United States has contributed largely increased amounts; and in all of them except textiles and glassware the United States already holds the bulk of the trade. We furnish 89 per cent of the breadstuffs, 50 per cent of the other foodstuffs, 42 per cent of the iron and steel, 92 per cent of the coal, 98 per cent of the tallow, 22 per cent of the glassware, and 21 per cent of the textiles.

KINDS OF GOODS NEEDED.

A clear idea of the kinds of goods in demand in Guatemala, and the position of the United States in the trade, may be obtained from the following table which includes all principal items of Guatemalan import (values in thousands of United States dollars):

Articles.	All countries, 1905.	United States, 1905.	Per cent from United States.	From United States.		
				Average per annum, three years, 1899–1901.	Average per annum, three years, 1902–1904.	Per cent of increase (+) or decrease (−).
Food stuffs:						
Breadstuffs	1,054.8	937.5	88.8	.....	.....	.....
Beverages	210.1	45.4	21.6	.....	.....	.....
Provisions	128.0	116.2	90.8	.....	.....	.....
Fruits and vegetables	38.4	29.5	76.8	.....	.....	.....
Sundry preserved goods	89.6	48.4	54.0	.....	.....	.....
All others	25.7	4.8	18.8	.....	.....	.....
Total	1,546.6	1,181.8	76.4	439.5	445.1	+ 1.3

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Kinds of goods needed—Continued.

Articles.	All countries, 1905.	United States, 1905.	Per cent from United States.	From United States. Average per annum, three years, 1899–1901.	Average per annum, three years, 1902–1904.	Per cent of increase (+) or decrease (−).
Textiles:						
Cottons	1,447.6	317.3	21.9	171.6	289.9	+39.8
Woolens	143.6	0.8	0.5			
Silks	163.6	68.8	41.9			
Linens	12.4	1.0	7.9			
Sacks	135.0	18.6	13.8			
All other	11.3	1.0	8.9			
Total	1,913.5	407.5	21.3			
Iron and steel:						
Machinery	152.2	78.6	51.6			
Agricultural and laborers' tools	107.6	21.7	20.2			
Mechanics' tools	24.3	9.4	38.7			
Railway materials	93.8	68.2	72.7			
Household utensils	76.4	16.8	22.0			
Galvanized roofing	60.5	6.8	11.2			
Pipes and fittings	19.3	11.2	58.0			
Fence wire	30.0	22.4	74.9			
Hardware	13.3	6.5	48.7			
Iron and steel for industrial uses	32.4	23.0	70.9			
All other	92.4	33.6	36.4			
Total	702.1	298.0	42.4	139.2	180.4	+29.6
Paper	104.5	18.6	17.8	16.5	20.8	+26.1
Glass and glassware	38.7	8.7	22.4	6.3	9.4	+49.2
Cars, carriages, etc.	5.7	3.1	54.8	14.1	11.3	−19.9
Wood:						
Unmanufactured	42.7	42.3	99.1			
Manufactures	27.3	9.2	33.8			
Total	70.0	51.5	73.7	40.2	84.2	+109.4
Leather:						
Unmanufactured	51.5	33.0	64.1			
Boots and shoes	6.5	4.9	76.0			
Other manufactures	14.4	1.9	12.9			
Total	72.4	39.8	55.0	13.7	30.9	+125.5
Coal	69.3	63.9	92.2	7.7	32.0	+315.6
Oils	72.0	54.3	75.4	31.3	40.9	+30.7
Paints, pigments, colors, etc.	25.4	15.8	62.3	12.5	13.5	+8.0
Chemicals, drugs, medicines, etc	128.2	59.1	46.1	35.3	33.4	−5.4
Explosives	22.0	21.7	98.6	19.0	22.2	+16.8
Copper manufactures	16.4	4.1	25.0	1.3	2.6	+100.0

HINTS FOR AMERICAN EXPORTERS.

The bulk of American trade with Guatemala is seen to be in foodstuffs and in iron and steel goods, and in both of these classes of commodities as a whole we supply a larger share than any other country. There are many separate items included in these headings in which we are, however, far behind some of our competitors. A more detailed examination of these latter may offer hints to our exporters as to lines in which their trade might be increased.

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Articles.	All countries.	United States.	Chief competitors.
Breadstuffs:			
Rice	$37,100	$26,500	Germany.
Malt	32,300	21,200	Chile.
Crackers, etc	5,600	3,900	England, Germany.
Paste preparations	4,100	1,800	Italy.
Provisions:			
Butter	4,600	2,800	Germany.
Cheese	8,300	3,500	Italy, Germany.
Hams, bacon, sausages	4,700	500	Spain.
Sundry preserved goods:			
Wooden coverings	9,800	8,200	Germany, Spain.
Other coverings	79,800	40,200	Germany.
Sweets and confits	11,000	4,200	England, Germany.
Beverages:			
Mineral waters	6,500	1,600	England, France.
Beer	44,800	6,400	Germany.
Spirits	54,600	18,200	France.
Ginger ale	2,600	600	England.
Liquors	7,300	400	France.
Cider	1,000	400	Spain.
Wine, red	41,700	14,500	France, Spain.
Wine, white	35,700	2,600	Spain, France, Germany.
Wine, sparkling	12,500	65	France.
Sundries: Table oil	9,900	3,200	France, Spain.
Iron and steel:			
Electrical material and apparatus	20,700	5,900	Germany.
Firearms—			
Revolvers	6,600	6,000	Spain.
Others	6,100	670	Germany, Belgium, England.
Household utensils	76,400	16,800	Germany.
Pumps	2,400	1,100	Germany, England.
Pipes and fittings	19,300	11,200	England, Belgium.
Hardware	13,300	6,500	Germany.
Tools and implements	131,900	31,100	Germany, England.
Galvanized roofing	60,500	6,800	Germany.
Machinery driven by animal, water, or steam power.	113,300	45,200	England, Germany.
Typewriters	3,075	2,774	Germany.

COMPETITION IN TEXTILES.

In textiles the United States holds but 21 per cent of the total trade, yet there are certain lines of these goods in which we are making progress, which is prophetic of considerable changes in the near future. In woolen, linen, and jute manufactures we hardly compete at all, but in silks we already hold the largest share, and in several classes of cottons we have made marked progress.

Articles.	All countries.	United States.	Chief competitors.
Silk goods:			
Ready-made goods	$63,300	$38,900	Japan, China.
Shawls and muffiers	32,100	20,200	Japan.
Ribbons	19,500	35	Germany, England.
Umbrellas and parasols	4,500	750	Germany, Italy.
Silk floss	16,500	7,100	England, Japan.
Piece goods	18,300	1,300	Japan, France, Germany.
Cotton goods:			
Ready-made goods	45,900	3,600	England, Germany.
Ribbons	4,700	130	Germany.
Corsets	4,500	600	Germany, England.
Drills	135,200	53,500	England, Germany.
Blankets	24,300	4,000	Do.
Thread and yarn	190,200	1,800	England.
Umbrellas and parasols	4,700	1,800	Germany.
Underclothing	56,600	4,200	Do.
Piece goods—			
Unbleached	372,200	134,700	England.
Bleached	114,800	8,200	Do.
Dyed	92,700	38,500	England, Germany.
Prints	124,600	43,900	England.
Twills	33,500	300	Do.
All other	120,300	10,400	England, Germany.
Towels	10,400	250	England.

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In cottons the United States makes the best showing in drills, unbleached and dyed goods, and in prints. There is a steadily increasing demand for American goods of this sort not only in Guatemala but in all Central America. The difficulties which stand in the way of increased business are chiefly those which affect the sale of our cotton goods in all Spanish America. They have been repeatedly alluded to in my previous reports.

PANAMA.

COMMERCIAL STIMULUS.

TRAFFIC ACROSS ISTHMUS STEADILY INCREASING.

Consul James C. Kellogg supplies the trade returns of Colon for the year 1905, showing that the imports of that Panama port have gone over the two-million-dollar mark. He writes:

The value of the imports during 1905 amounted to $2,008,904, an increase of about $408,000 over that of 1904. Of this amount the imports by countries were as follows:

United States	$1,376,074	Belgium	$11,592
Great Britain	229,107	Italy	11,487
Germany	196,084	All other countries	61,784
France	89,248		
Spain	33,528	Total	2,008,904

The principal articles of import from the United States were railroad material, coal, lumber, provisions, kerosene, cotton goods, hardware, beer, shoes, furniture, hats, and sewing machines. From Europe: Cotton, woolen, and linen goods, ready-made clothing, shoes, hats, candles, matches, ale, beer, wines, and fancy articles. The principal exports from Colon go to the United States, which in 1905 took of bananas, $35,780; cocoanuts, $54,600; hides, $4,755; ivory nuts, $26,080; rubber, $8,185; turtle shell, $9,240, and miscellaneous, $2,845, being a total of $141,485.

ISTHMIAN TRANSIT TRADE.

Freight traffic from the United States to the South Pacific ports increased by 3,375 tons, while the increase to Central American and Mexican ports was 6,855 tons, and to Panama 6,790 tons. From Europe the increase was 3,390 tons to South Pacific ports, and 5,080 tons to Central American and Mexican ports. The decrease from Central American and Mexican ports to Europe was 6,075 tons, and from the South Pacific ports to the same destination it was 9,950 tons. The total freight carried across the Isthmus in 1905 amounted to 444,230 tons, an increase of about 30,000 tons. The through traffic showed an increase of 66 per cent of the total tonnage handled, as against 82 per cent for 1904. The total number of passengers carried over the railroad during the year amounted to 273,165, as against 114,000 in 1904. The total earnings for the year 1905 amounted to $1,912,552, an increase of $644,981 over the previous year. The revenue derived from merchandise and coal freight was $1,306,145, an increase of $198,620 over

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that of 1904. The passenger earnings were $129,163, an increase of about 50 per cent over 1904. From transporting treasure and mail the receipts were $116,790, as against $110,792 for the year 1904. Revenue from through passengers decreased $3,372, although the number increased 1,425. The through rate of passage was reduced on first class from $10 to $6.50, and on second class from $5 to $4.50. The number of local passengers increased 185,867, amounting to $47,064, due to the resumption of work on the canal.

The combined total earnings of the Panama Railroad and Steamship Line during 1905 amounted to $3,077,611, an increase of $536,512 over that of 1904. The total expenditures amounted to $2,541,099, an increase of $679,358 over 1904. During 1905, 471 steamers, of 1,361,150 tons, and 268 sailing vessels, of 22,348 tons, entered the port of Colon, showing an increase of 94 steamers, of 24,150 tons, and a decrease of 73 sailing vessels, with an increase of 6,948 tons over 1904. The number of American vessels entering the port of Colon during 1905 was 63 steamers, of 156,371 tons, and 21 sailing vessels, of 13,354 tons. The Royal Mail and the Hamburg American Steamship lines have established fortnightly lines between Colon and New York, which, together with the five steamers of the Panama Railroad Steamship Line, make a total of nine steamers monthly between New York and Colon.

RELATIONS WITH UNITED STATES.

A lack of greater business relations with the United States is due chiefly to longer credits given by European houses and the failure of American manufacturers and merchants to send to this country commercial drummers who speak Spanish and are familiar with the people and their wants. Only poor results can be obtained by correspondence. Postage spent on mailing catalogues and price lists is, as a rule, wasted. A few American firms have established agencies here, and have done well, among whom I may mention Armour & Co. and Swift & Co.

IMPROVEMENTS ON ISTHMUS.

By the newly declared policy of the Panama Railroad Company, which offers inducements for the development of commercial traffic on the Isthmus, material reductions in local passenger and freight rates and other changes have increased the traffic considerably. Increased demand for skilled and unskilled labor has caused increase in the pay of nearly all grades of the railroad company's employees. New sidings and spur tracks have been laid; a double track on the main line is being laid, water stations, coaling plants, and many other improvements are being made; telegraph and telephone lines are being extended along the entire line of the railroad; two large piers have been constructed at the entrance of the canal and old Panama Railroad pier No. 4, at Colon, enlarged considerably, thereby facilitating the working of two steamers at this dock.

With the exception of a few aerated-water factories, electric and ice plants, there are no other industries. The Colon Electric and Ice Supply Company, owned in Colon, is a stock company and holds a concession for twenty-five years. The power is 1,200 incandescent lights and the ice capacity 10 tons. Labor which could be secured for agricultural and industrial pursuits can not be obtained, as it is employed on

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the docks, railroad, and Isthmian Canal. Agriculture, which was never carried on to any great extent, is also being abandoned, owing to the increased demand for laborers for canal work.

The erection of the wireless station by the United States Navy Department began in 1905 and was completed in August of the same year. It has an electric plant of 37½ kilowatts, and is in communication with Key West, Fla., Guantanamo, Cuba, and ships and small stations within a radius of 300 miles. The station is equipped with the De Forrest Wireless Telegraph Company's instruments and is situated on a reservation on the east end of Manzanillo Island, just below the Colon hospital, on the beach. The buildings consist of a combined operating and dwelling house, power house, and oil storehouse. The aerial wires are suspended by three masts, each 208 feet in height. The commanding officer of marines, Camp Elliot, Haut Obispo, Canal Zone, is in charge. Four assistants, enlisted men of the Navy, operate this plant.

There are two cables, one via Galveston and the other via Jamaica, the latter having been recently repaired. The cost of cabling to the United States is 69 cents per word.

IMPORTS INCREASING.

Consul Kellogg, also reports that the import duties collected at Panama City, Colon, and Bocas del Toro for the first three months of 1906 greatly exceeded those for the last quarter of 1905, the figures being:

Collections on merchandise by the Republic of Panama at these ports during the quarter ended March 31, 1906, aggregated $132,977, against $122,639 for the previous quarter. The duties collected on liquors for the quarter ended March 31, 1906, were $72,446, an increase of $10,941 over the previous quarter. The total increase of revenue was therefore $21,279, with no change in the import duties.

GENERAL PROGRESS.

IMPROVEMENTS IN THE CITY OF COLON.

Consul Kellogg writes from Colon that never in its history has there been so much activity in improving that Panama city as during the last few months. He continues:

This work is still going on, and it is hoped that within a few months the greatest part of the improvements will have been accomplished. Sanitary improvements are also pushed with great energy, sewers are being laid, gutters made, and a canal on D street, extending from "Coolie Town" on the north side of the island to "Fox River" on the south side, about a mile long, 15 feet wide, and about 6 feet deep, has been dug to drain the swamps back of Colon. Into this canal gutters running east and west will discharge. As this canal has no current the sewers will not discharge into it. The sewerage will be pumped at a small pumping station through a pipe into Manzanillo Bay. The sewers are not intended to carry off any surface drainage.

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NEW WATERWORKS, FIRE PROTECTION, ETC.

A modern system of waterworks is being constructed. An additional reservoir to supply the city with water has been built on a hill back of and above Mount Hope. Water pipes, connecting with the reservoir, are being laid in most of the streets of the city, and water-plugs set up at various street corners.

A fire-engine house has been built, and two steam engines with a complete equipment acquired. A large brick building for the city government is being built, also a Roman Catholic church (the only one in the city), extensive hospital accommodations, and a steam laundry are being built on the railroad reservation.

All streets, excepting Front and Bolivar, are being widened 20 feet, 10 feet on each side, and houses are being raised from 2 to 2½ feet. A New Orleans firm is here contracting for raising these houses, as also for moving houses in other streets. The most modern appliances for this purpose have been brought by this company; also their own men. Work has already commenced on several buildings.

The improvement of the east portion of the town lying east of D street, known as the "Backswamps," has begun. The undergrowth and bushes have been burned off. The land will be drained and filled in, which will give a much-needed territory on which to build dwelling houses for the overcrowded population of Colon.

PORTABLE HOUSES WANTED.

Streets are being graveled and lots filled in to an elevation of at least 2 feet above mean low tide. New frame buildings are being erected; nevertheless rents are increasing instead of decreasing, due to the large influx of people from all parts of the world, drawn here by the canal work. There is not sufficient lumber nor carpenters to meet the demand of rebuilding the city, which has been so often destroyed by fire, many of which streets were occupied by small shanties, which are now being torn down to make room for larger buildings.

Due to the foregoing facts, exorbitant rents and difficulty of obtaining suitable apartments or rooms exist, so there have been a few inquiries made at this office as to portable houses, and probably there will be some demand for this class of houses in the near future; it might therefore be well for manufacturers of such buildings who are desirous of getting this trade to make an effort in this direction by communicating with business houses here for the purpose of introducing such houses.

A cold storage and ice plant has just been completed by the Panama Railroad Company, which furnishes the employees of the Isthmian Canal Commission and the railroad company with wholesome meat, vegetables, and fruits, which, to a great extent, relieves the scarcity of good and nourishing food, also increasing the supply of ice, which constitutes one of the necessities of life in this climate. Visitors to Colon, who have been here in former years, are loud in their praise of the great improvements that have been made in this city since the United States Government took charge.

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MINERAL WEALTH.

NO PAYING MINES NOW OPERATED.

In answer to frequent inquiries from parties in the United States relative to mines and mining in the Republic of Panama, Consul Kellogg writes:

During the Spanish occupation of this country years ago gold mining was carried on extensively. What the Spaniards left affords at the present time but small remuneration to the natives and Chinamen. Mining companies have been formed, shares sold, and work begun, but so far, with a few exceptions, there is little to show for the money and time spent in conducting these mining operations. Gold quartz in pockets is found in numerous places in this Republic, but owing to the successive volcanic disturbances that have occurred the geological formations show that unvarying stratas of ore rarely, if ever, exist; that mineral veins, through volcanic eruptive processes, have been broken and fragments deposited in various levels of the earth, some at higher, others at lower, depths, and often at great distances from the mother vein.

These deposits are so small and scattered that it does not pay to hunt for them or work them when once found. I know of only one gold mine which manipulates gold quartz that is a paying investment. This mine is in the Province of Panama, on the Pacific side of the Republic, and has been operated for some years. On the Isthmus of Panama there are no gold mines in operation, and none has been worked since the mine at Santa Rica, in the Province of Colon, which hardly deserves the name of a gold mine, was abandoned after thousands of dollars had been sunk in the venture.

MANGANESE ORE AND COAL.

In recent years valuable deposits of manganese ore were found near Nombre di Dios, in the Province of Colon, and American investors organized the Manganese Mining Company, which paid large dividends until forced to close down by a depression of prices in the home markets.

Most of the coal is shipped here from the United States, a small portion being imported from Australia by the Pacific Steam Navigation Company. Coal beds or veins are to be found in many parts of the Republic of Panama. In the province of Bocas del Toro a very good grade of bituminous coal was discovered, but it was so far back in the interior that it was not a paying investment. In the Isthmian Canal Zone coal veins were found by the French during their occupancy of this territory. This statement seems to be verified by the reopening of an old coal bed on the Negrito River. Samples of this coal, which were shown to me as coming from this coal bed, appeared to be of the lignite formation, and they have been sent to New York for the purpose of finding an investor for this mine. Recently two other places on the same property, but at a lower level, were bored, and it is reported that a coal stratum 3 feet thick was discovered.

From personal observation and a knowledge of methods in vogue in this section of country, I would advise Americans to carefully investi-

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gate before investing in any kind of mines here. According to semi-official reports, which this office can not vouch for, however, beds of gold, silver, copper, lead, and cinnabar exist in the districts of Cocle, Veraguas, Chiriqui, and Panama.

COCOANUT GROWING.

THE INDUSTRY IN PANAMA.—SHIPMENTS TO UNITED STATES.

The largest percentage of cocoanuts shipped from this district is gathered by the San Blas Indians, who occupy a strip of coast territory extending on the Caribbean Sea from Point San Blas to Cape Tiburon, a distance of 125 miles. The largest percentage of cocoanuts from the San Blas coast is traded by the Indians to the masters of small coasting schooners, who give in exchange manufactured articles, such as prints, machetes, shotguns, hats, shoes, etc. Most of these cocoanuts are shipped to the United States direct.

The cocoanuts exported from Colon and vicinity are raised principally by native Panamans on small plantations of 500 to 1,000 trees. The only large plantation is that of the Caribbean Cocoanut Company, located at Toro Point, just across the bay from Colon, and owned by an American. This holding is the only one of any size, and consists of about 20,000 trees. The fruit grown on this plantation and on the small native places are shipped to the United States by steamers at the freight rate of $4 a thousand. No cocoanuts are dried and shipped as copra, being simply husked, and no use is made of the fibrous material enveloping the shell.

ANNUAL CROP AND PLANTING.

From the entire consular district of Colon about five to six million cocoanuts are exported to the United States annually. The number of cocoanuts shipped from Colon to the United States during 1905, amounting to about one and one-half million, were valued at $54,600. The market price of prime cocoanuts fluctuates from $15 to $25 a thousand, according to the demand.

In selecting land for planting cocoanuts, light and free soil should be chosen for nursery purposes, and the seed nuts should be selected from the produce of healthy, heavy-bearing cocoanut palm trees. The nuts are placed about 6 inches in the ground and 2 feet apart. When about 8 months old the young palms are transplanted from the nursery direct to the field, and placed about 18 feet apart. In the best lands the trees should bear in the fifth or sixth year. After the palms are 6 years old they require very little attention, except to keep them free from weeds and other plants. Of course the better the cultivation the larger and better the quality of the fruit.

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SOUTH AMERICA.

URUGUAY.

RAPID GROWTH OF FOREIGN COMMERCE.

HEAVY IMPORTS—GOOD FIELD FOR AMERICAN MANUFACTURES.

Consul John W. O'Hara, writing from Montevideo, says that the foreign commerce of Uruguay is increasing rapidly is apparent to anyone who is at all familiar with the prevailing conditions in that country. He continues:

There is a healthy growth in all branches of domestic trade and industry. Real estate, both city and country, is steadily advancing in price. Building trades in all branches are showing an activity unprecedented. Public improvements of all kinds are being carried forward with energy and rapidity, both in the city and in the interior. Public highways and bridges are being built, railroads extended, street railroads electrified—in short, Uruguay is enjoying an era of general prosperity, and the people generally have confidence that the present conditions are destined to continue for many years to come. To give a better idea of the growth of foreign commerce I give the figures showing the custom-house receipts for the corresponding quarterly periods of this and two previous years:

Month.	1906.	1905.	1904.
January	$1,070,177	$940,842	$551,751
February	1,054,891	886,778	544,620
March	1,519,709	1,208,450	890,497
Total, three months	3,644,777	3,036,070	1,986,868

This shows a net increase in customs revenues for the first three months of 1906 over a corresponding period of 1905 of $608,707, and of 1904 of $1,657,909. The total customs revenues for the year 1905 were $11,492,140; for the year 1904, $9,011,271. Should the present rate of revenues continue during the remainder of the year, as present appearances would indicate, the annual customs revenues would amount to more than $14,500,000. The customs revenues for the month of March exceeds by nearly $300,000 that of any previous month in the history of the country.

Notwithstanding that American shoes have been introduced into Uruguay and enjoy a certain popularity, the market is still worthy of attention. The native shoes are manifestly inferior to both European and American makes and do not seriously compete with them in the

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higher-priced lines. The leather tanned in this country is inferior, and the shoes, though American machines are largely employed in their construction, are of unskillful workmanship. The lasting is very imperfect, and the form in vogue is very narrow and injurious to the feet of the wearer, many crippled feet resulting from badly formed shoes.

As to men's shoes, it may be said that the American shoe is in a class by itself. It is preferred by the majority of men who pay over $5 for shoes and are not influenced by patriotic or other reasons. English-made shoes are scarcely worn outside the British colony. The only serious competitor of the American shoe among the better trade is the hand-made article. American shoes for men, such as would retail at home for $3.50 and $4, are here sold at from $5.50 to $6.50, while $5 shoes bring $7.50. These shoes pay a duty of about $1.20 per pair. There are, I believe, not more than four brands of American shoes in this market, two of which are of the $3.50 and $4 grade, and two of which sell at home for $5.

POSSIBILITIES WITH WOMEN'S SHOES.

It may be said that the market for women's shoes is practically untouched. One brand is represented, but the shoes shown are not typical American styles. They are merely light kid dress shoes, built on narrow lasts, with turn soles, the superior workmanship not, of course, being so readily apparent or distinctive as in the heavier styles commonly sold in the United States. While the possibility of converting the women of this country to the wearing of "mannish" shoes is questionable, there is still room for the American manufacturer in the slipper trade, which is a very important branch of the business in this country. I should consider the conquest of this trade quite feasible. An American-made strap slipper, for example, such as is sold at from $2.50 to $3, ought to compete successfully with the French or native article sold here at $5. As the duty on these goods ranges from 23 to 31 cents per pair, actual competition in prices as well as in quality would be possible.

CAMPAIGN OF EDUCATION RECOMMENDED.

The work of educating the women of this country to the wearing of American shoes would probably be difficult, and the chances of success small. This refers, of course, to those shoes which are distinctively American in style and workmanship. If such a campaign of education could be carried to a successful issue, however, it would be immensely profitable. On the other hand, it would be comparatively easy to place styles conforming more nearly to those at present sold, which are very light and not very durable. The duty on women's shoes is about 62 cents, and they would have to compete with goods selling at from $4 to $6.

The leathers generally in demand for dress and street shoes are patent and patent colt, vici, and glazed kid. These people do not take kindly to calfskin in a fine shoe, although a good many of the men's shoes of native manufacture are of this leather. Neither do they favor the more extreme American styles. The best native shoes just now are built on an approximation of the "spade" or triangular last, popular in the United States, but without its extreme features. The deal-

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ers also demand more moderate styles in the shoes they import from the United States, there being a large proportion of straight lasts among them.

MARKET FOR FOODSTUFFS.

This consulate has recently received inquiries as to the availability of this market for the sale of certain articles of American production, such as prepared, canned, and preserved food products. After careful inquiry I am able to report that there is to be found in this market a great variety, the canned and dried fruits being mostly imported from Italy, France, and England, with a few varieties from America, and the preserved fruits, jams, jellies, and marmalades from England and France. They sell at an advance of from 100 to 150 per cent on the American price of the same articles, the usual price being from 60 cents to $1.20 per kilo (2.20 pounds). Dried peaches, apples, and prunes, of the ordinary grade, sell at retail from 50 to 60 cents per kilo. All these goods find ready sale.

This is an especially desirable market for breakfast foods, such as prepared oats, wheat, and barley. The custom of this country is to take a very light breakfast, usually a cup of coffee and a roll. To this is sometimes added a breakfast food. The brands of these products are put up like the American articles, except that they are marked "Made in Canada," and that the general place of business of each company is given as London, England. The labels on these packages bear an American "imprint," and I am convinced that they are of American manufacture. While the real producer may, in this way, sell his goods, both he and the country lose the advertising.

FANCY BAKERY PRODUCTS.

Crackers, cookies, tea biscuits, and fancy bakery products have an extensive sale here. It is the custom to drink tea or mate every afternoon, and cookies, crackers, or tea biscuits are served, so that the demand is really great while the supply is usually limited. The price, 60 cents per kilo, is very high, for the grade generally sold is very much inferior in quality to the similar American product. These goods come from France or England, and are entered at the custom-house under the general specification of "bizcocho" and taxed 16 cents per kilo. This merchandise arrives in prime condition, packed in tin boxes or cases, and so sealed as to exclude air and moisture, with the tins packed in strong wooden boxes to prevent breakage in handling. This no doubt adds to the expense, but they have a fresh appearance that makes it easy to sell them. The dealers dispose of the tin cases for as much or more than the original cost, and for these reasons are willing to pay the added cost.

AMERICAN PORK NOT SUFFICIENTLY CURED.

This climate is such as to make the proper curing of pork almost impossible, except by means of artifical cooling or chilling. This method of curing meat they have not yet introduced to any great extent. The native pork, cured according to present processes, is not desirable as an article of food, so that almost all the pork used is imported, and it is rather expensive. The usual price for ham is $1.20 per kilo, or

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50 cents per pound, and that only when the entire ham is purchased. The ham most generally sold is the Yorkshire brand from England. These hams are well preserved. There is also a good market here for bologna, frankfurters, and other cured and smoked sausages.

When I made inquiry as to the reason why the greatest pork-producing country in the world was not furnishing at least a portion of the supply for this market, I was informed that the American pork is not sufficiently cured to insure safe shipment through the Tropics, and that the English pork and other meat products are especially prepared for ocean transportation and climatic changes. I feel confident that American packers, when they become sufficiently interested in this market to understand its extent and its demands, will be able to devise ways and means of delivering hog product in similar good condition and at lower prices. The bacon used, except the inferior native variety, is also imported from England, and is very superior. It is usually packed for shipment in tin cans or stone jars, and sells at about the same price as ham. The customs duties charged on these articles amount to 24 cents per kilogram. The consumption of lard in this country is small, olive and cotton-seed oils being used instead. In my opinion the people could be educated to the use of lard provided the prices were reasonable.

CANNED FISH.

Canned fish, oysters, lobsters, sardines, and other food products of this class are extensively sold here for use in the interior as well as in the city. Such articles are also much in demand for the ships calling at this port, and are also kept to supply the demands of the dealers in the up-river countries of South America. This is a good market, and by careful attention and investigation may be made a profitable one. The best results can only be obtained by personal investigation and attention, but it will pay. Other countries keep sales agents here and keep in touch with markets and conditions, and if our producers are to keep abreast of the times they should do the same. It will pay.

PARAGUAY.

NATIONAL PROSPERITY.

PRESIDENT'S MESSAGE TO CONGRESS SHOWS FINE DEVELOPMENT.

Consul John N. Ruffin forwards from Asuncion translated extracts from the message of the President of Paraguay to the Congress of his country, covering many points of interest to the business men of the United States, as follows:

The first notable events are the foundation of the Banco Paraguayo (the Paraguan Bank), whose capital is associated with French Bank of the River Plate, establishing thereby one more bond of union with Argentina, which is a chain of gold of material interests; the increase of the capital of the Industrial Paraguaya, the most powerful company in Paraguay, from 8,000,000 to 30,000,000 pesos (peso now worth about 10 cents American); the establishment of the National Company of Insurance, with a capital of 5,000,000 pesos; the Paraguayan Trans-

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portation Company, with a capital of 2,000,000 pesos; La Paraguay Insurance Company, with 10,000,000 pesos; the Grand Hotel Paraguay, with 1,000,000 pesos; the Selvatica Wood Company, with 3,000,000 pesos; El Quebracho de Puerto Maria, with 5,000,000 pesos, and others, which have as an object the increase of industrial production and improvement of the national credit. An effort will be made to arrest the abrupt fluctuation in the quotations of gold, which are so prejudicial to commercial transactions, and to fix a rate so that the country will return to the predominance of sound money, or at least approximate it.

Tranquillity exists in all parts of the country, without any danger of the constituted order being disturbed. In foreign affairs reference is made to the German gunboat sent by the Emperor of Germany to greet the Government, as a signal demonstration of good friendship. Concerning public education the President refers to the resolution to send 10 persons to Europe and the United States for the purpose of studying mechanical engineering and auxiliary sciences, in accordance with the law authorizing same; to the establishment of a mercantile college for girls, which gave good results during the past year; to the enumeration of primary schools as having been considerably augmented, placing the number of rural schools at 257, elementary schools at 55, graded schools at 32, normal schools 2, and 1 night school in the capital; total, 347 schools with 30,000 pupils; to the National College of Asuncion, counting 633 pupils and 72 professors; to the National University, which is composed of two principal faculties, that of law and social sciences and that of medicine, with 196 students and 33 professors, and to the reorganization of the agricultural school.

PUBLIC AND FINANCIAL IMPROVEMENTS.

In the department of interior are mentioned 16,650 square meters of street paving having been laid by the city of Asuncion, the work being suspended owing to the deficiency of the law, reformation of which is being urged, the early call for bids for the electric lighting of the city, the annexation of a new section to the national department of hygiene, as technical inspection of hygiene, health of animals, etc., the organization of a department denominated "general direction of ways of communication," the notable advances made by the department of post and telegraph, in which actually exists 117 simply postal stations, and 40 mixed telegraphic, served by 1,135 miles of wire, and the preliminary agreement between the Government and the railroad enterprise from Asuncion to Pirapo. It is best that the nation do not buy the railroad again, nor collect the amount of its shares, but to obtain better service will construct branches in other directions.

In the department of finance the revenue from the custom-houses has almost doubled itself in the last year. In 1903 it was $1,296,067 gold; in 1904, $1,507,107, and in 1905, $2,246,797. In the internal revenue department the increase has also been considerable, the receipts amounting in 1905 to $241,695 gold. The agriculture bank continues to broaden out, now having an authorized capital of about $1,450,000 gold. The Government has refunded to Messrs. Rius y Jorba $500,000, having rescinded their contract for taking over half the hides produced in the country. The emission of paper money in circulation amounts to 35,000,000 Paraguayan pesos (about $3,500,000).

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The President closes his message by stating that his Government will make no distinction whatever among the men of the different political parties or divisions, which opinions may have separated, but will call all to occupy public places without exacting any other condition than their fitness. A policy of conciliation between the parties is that which conduces to the interest of the country.

BRAZIL.

SMALLER CROPS.

UNFAVORABLE WEATHER AFFECTS COFFEE, RUBBER, ETC.

Eugene Seeger, formerly consul-general at Rio Janeiro, writes that since the middle of December the rainfall in nearly all parts of Brazil, except in the State of Rio Grande do Sul, has been so constant and so heavy as to surpass all record of this generation, and it has caused the most serious losses of life and property through land slides and inundation.

While in the extreme southern State the drought has severely damaged the crops of food stuffs and the pastures, in all the other agricultural States of Brazil the damage done by excessive torrential rains will make itself seriously felt in the economic conditions of the nation. The expected great coffee crop (season of 1906–7) will undoubtedly be very much reduced, and the import of food stuffs will have to be largely increased. The unexpected change in imports and exports of the Brazilian nation must seriously affect its finances. The value of the Brazilian currency has been regularly declining from day to day. It goes without saying that the great corner in coffee (the "valuation scheme") contemplated by the coffee States of Brazil, backed by the National Government, will be made more and more difficult through the damage done to the coffee crops by the excessive rains and inundations.

SMALLER RUBBER CROP PROBABLE.

The rubber production of next season will indirectly be influenced through the copious rains in a very peculiar way. The production is limited not so much by the demand or by the crop—those two factors have recently been steadily favorable to the producers—but by the facility with which labor can be procured for this unhealthy industry. By far the largest contingent of the rubber cutters in the Amazon regions is furnished by the State of Ceara, where there prevails in about seven years out of ten a famine caused by the excessive droughts. Through this famine the native labor is forced to accept the offers of the rubber estates on the upper Amazon and its affluents. The conditions on which those poor people have to accept labor are such that only the direct necessity induces them to avail themselves of the offers. This year, however, the State of Ceara, on account of the abundant rains that prevail there, will furnish a good living for all of its citizens, and probably very few will be forced to risk their lives in the rubber plantations. The presumption, therefore, is that during the next season labor will be scarce in the rubber regions of the extreme north, with consequent smaller production, and advancing prices for the product.

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WOMEN'S DRESS GOODS.

FINE MARKET OPENING IN BRAZILIAN CITIES.

Mr. George E. Anderson, consul-general at Rio de Janeiro, responding to an American inquiry, writes that there ought to be a splendid opening for American dress specialties in the several large cities of Brazil, notably Rio de Janeiro.

The Brazilian women are strictly up to date in their dress, the latest fashions from Paris and other European fashion centers appearing upon the streets of these cities as soon as they do in the cities of the United States. The dress of Brazilian women as a rule runs to French styles, is generally inclined to be somewhat gaudy, and by reason of the climatic conditions and manner of living generally it runs to very light fabrics. Withal it is very modish, and in both gowns and millinery there is a lavishness which often ill accords with the means of the wearers.

With European racial and social connections, it is but natural that most materials and accessories for women's dress in Brazil come from Europe, and it may probably be said fairly that a strong prejudice in favor of European goods will be encountered by manufacturers in other parts of the world seeking a Brazilian market. At the same time there are many dress accessories now manufactured in the United States which are vastly superior to anything offered from Europe, hence I do not doubt that a profitable market for many of these lines can readily be built up if the goods are properly introduced. I think this is true of different varieties of stays and goods made for giving shape to garments; for some of the innumerable patent fasteners, hooks, eyes, buttons, and the like now made in the United States; for some of the grades of dress trimmings, and especially for trimmings and decorations of a semijewel nature.

HOW THE GOODS SHOULD BE SHIPPED.

For all of these goods there are tariff difficulties to be encountered, but they are not insurmountable. The fact that stamp and other revenue taxes which go with the clearance of goods through the customs creates considerable expense, in addition to the high customs rates themselves, suggests that it will be found economical and advantageous for other reasons to ship all such goods in as large consignments as possible. In fact, the trade ought to be in the hands of a representative, who might at the same time handle a number of lines of goods of a related character with advantage. I see little opportunity to introduce American goods of this or any similar class in Brazil, or indeed in any other part of the world where I have had consular experience, except through experienced representatives. European competition of itself, not to mention the fact that consumers generally are not acquainted with many American novelties and modern conveniences, suggests the necessity of active, energetic work to secure business. American lines now represented abroad are securing profitable markets, and there is no reason why other American goods should not be used very generally.

The most practicable plan to follow where a concern can not afford to send its own representative in the field is for manufacturers in simi-

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lar lines to combine and send a man in the field to represent them, or to sell through manufacturers' agents or commission men, many of whom are now in this line of business.

Business letters to Brazilian houses should be in Portuguese, although French will generally answer the purpose if the local language can not conveniently be used. Unusual care should be exercised to see that the letters are carefully addressed and that sufficient postage is paid, the penalty for insufficient postage imposed upon the recipient of the letters here being a business discourager worth considering.

VENEZUELA.

GENERAL TRADE STAGNATION.

COMMERCIAL LIFE DEPRESSED, WHILE FOOD PRICES ADVANCE.

Consul Thomas P. Moffat, of La Guaira, advises that with the closing of the export of the season's cocoa and coffee crop, which is now about completed, Venezuelan commercial conditions are far from reassuring or satisfactory. Mr. Moffat furnishes the following details:

War duties on exports continue. Provisions of all kinds, even such staples as rice, beans, salted fish, etc., forming the principal food articles consumed by the laboring classes, have advanced from 25 to 100 per cent in price, while at the same time the opportunities for employment are rapidly decreasing. No public works are being constructed or contemplated with the exception of a floating dock, which is being built at Puerto Cabello. Since the announcement of the contract organizing a Government bank has been made public, gold has entirely disappeared from circulation, and even an exorbitant premium offered for it fails to bring it forth from "hoarding," which is the method generally resorted to by those possessing it.

The cigarette trust recently formed has taken from many who sought through their manufacture, in a small or local way, to obtain a livelihood their only means of earning a support. The Hamburg Line of steamers, which has regularly scheduled two steamers monthly for Venezuelan ports, has withdrawn one steamer, owing to the smallness of the cargoes obtainable. Even those of the wealthier class, whose investments consist principally in improved real estate, are feeling the effects of the commercial prostration. The cities give ample evidence of this fact by the extraordinary number of vacant houses. Rents in consequence are generally cut in half in order to obtain satisfactory tenants.

BUSINESS MEN NOT VENTURING.

The opportunity to keep in touch with the foreign market for cocoa and coffee, the principal articles of export, has been prevented through the severance of direct cable communication, which is of the utmost importance to those who must keep informed as to market conditions in order to ship to the best advantage. The extended uncertainty as to the adjustment of foreign matters is restraining trade in other quarters and compelling those who largely control the financial situa-

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tion, commission and banking houses, to be very prudent in commitments involving any ventures beyond actual and present requirements.

The railroads and harbor corporations with grave apprehension note the decided falling off in earnings, unmistakable evidence of the declining conditions. Several of the concessions recently granted have been abandoned through misgivings as to the future, and the options paid thereon forfeited. That underlying conditions are prejudicial to prosperity, at least for the present, is so apparent as to cause anxiety on the part of all commercial interests.

COLOMBIA.

CITY IMPROVEMENTS.

STREET SPRINKLERS, CARTS, STONE CRUSHER, ETC., WANTED.

Consul P. P. Demers, of Barranquilla, advises that a Colombian decree has created a board of health and embellishment, for the purpose of sanitating and improving that city.

The board is composed of five members, namely, the alcalde or mayor, as chairman, the official architect, the secretary-general of the department, and two merchants—John Gillies and A. H. Berg. It is expected that the board will accomplish a great deal by way of improving the city. The garbage, public and private, is to be gathered regularly, the streets are to be sprinkled at regular intervals, the main streets macadamized, and all pools of stagnant water are to be filled up. Public parks and squares are also to be bettered and made more attractive.

As soon as the board is fully organized, garbage carts, street sprinklers, and a stone crusher are to ordered. American manufacturers along that line should not delay sending in their bids, which can be done by addressing any of the above-mentioned parties, but preferably Señor Don Domingo de la Rosa, the alcalde and chairman of the board.

PAN-AMERICAN RAILWAY.

PROGRESS MADE IN CONSTRUCTION.

The Mexican Investor says that the present plans of the officials of the Pan-American Railway south contemplate pushing the road through all the Central American Republics and into and through South American countries to Buenos Aires. Beginning at San Geronimo, the station on the Tehuantepec National where the Pan-America officially has its northern terminus, the road is already constructed and in operation as far as Pijijiapan, and it is expected that the road as fas as the border of Guatemala will be completed by the close of this year. It has been the purpose of the Pan-American officials to begin the construction through Guatemala also this year, but the revolution now in progress may cause some delay.

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WEST INDIES.

SANTO DOMINGO.

FAIR FIELDS FOR PROFITABLE ENTERPRISE.

GROWTH OF COMMERCE—IMPORTANCE OF AMERICAN SUPREMACY.

The following statement of the foreign commerce of the Republic of Santo Domingo and the possibilities for the development of American trade in that country has been compiled from consular and other governmental sources and is published in response to a demand for information on the part of the export interests of the United States:

The Republic of Santo Domingo has an area of about 18,000 square miles, or two-thirds that of the island which it occupies with Haiti, and has a population of about one-half million souls. Probably no country on earth of equal extent has so many natural elements of prosperity within its borders as Santo Domingo. Its agricultural, mineral, and forest resources, although hitherto comparatively neglected, are remarkably varied and important. The principal products of the soil are sugar, cacao, coffee, tobacco, bananas, and other tropical fruits. The mineral resources include gold, iron, copper, quicksilver, petroleum, rock salt, and other valuable minerals and metals. The products of the forest are also extremely rich, including mahogany, satinwood, lignum-vitæ, lancewood, oak, pine, logwood, fustic, several species of palms, and many valuable fiber-producing and medicinal plants. Fertile lands suitable for the cultivation of almost any product of the tropical or the temperate zone may be purchased very cheaply, and stock raising has proved to be a profitable industry, shelter not being required and nutritious grasses being found in abundance upon the plateaus. Several fields of domestic enterprise await profitable occupation, particularly railroads, coasting steamers, banks, and sawmills.

FOREIGN COMMERCE.

The total foreign commerce of the Republic now amounts to about $10,000,000 per annum, of which the imports constitute, in round numbers, $3,000,000 and the exports $7,000,000. Col. George R. Colton, controller and general receiver of Santo Dominican customs, has kept careful statistics of the commercial movement in the calendar year 1905, according to which it appears that the value of the aggregate trade was as follows:

Total imports (exclusive of currency)	$2,736,828
Total exports	6,880,890
Total merchandise	9,617,718
Gold, silver, and paper currency imported from the United States	359,435
Gold, silver, and paper currency exported to United States	15,208
Total foreign trade	9,992,361

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These are record-making figures for the foreign trade of Santo Domingo. According to the Statesman's Yearbook, the total imports and exports in the period from 1892 to 1901 were as follows:

Year.	Imports.	Exports.
1892	$1,958,000	$2,955,000
1893	1,888,000	3,750,000
1894	1,550,000	2,880,000
1895	1,732,000	1,764,000
1896	1,704,000	2,199,000
1897	2,246,000	3,568,000
1898	2,274,000	2,725,000
1899	3,107,000	3,493,000
1900	3,233,000	6,006,000
1901	2,987,000	5,224,000

The foreign trade in 1905 was carried on principally with the United States, Germany, France, and Great Britain, mentioned in order of relative importance. The share of the United States in this total trade was 65 per cent; that of Germany, 17 per cent; of France, 11 per cent; of Great Britain, 4½ per cent. The remainder of the trade was divided among Italy, Spain, Belgium, Cuba, Porto Rico, and other countries. The imports and exports, by countries, for the calendar year 1905 are given in the annexed tables:

Imports and exports, by countries.

Country.	Imports.	Exports.
United States	[a]$1,961,075	[a]$4,484,271
United Kingdom	366,686	82,800
Germany	429,699	1,261,006
France	162,413	953,065
Italy	80,873	.....
Spain	43,002	.....
Belgium	4,443	.....
Cuba	10,167	67,067
Porto Rico	16,123	.....
Other countries	21,782	47,889
Total	3,096,263	6,896,098

[a] Inclusive of gold and silver currency.

Imports in 1905, with principal countries of origin.

Agricultural implements		$38,831
Germany	$19,230	
United States	15,394	
United Kingdom	2,427	
Animals:		
Horses and mules		9,273
United States	7,529	
Cattle and other (mostly Porto Rico)		4,568
Books, etc		6,436
United States	2,563	
Breadstuffs:		
Wheat flour		209,823
United States	208,968	
Other		22,226
United States	20,508	
Chemicals, etc		58,250
United States	39,023	
France	10,856	
Coal		23,890
United States	12,803	

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Imports in 1905, with principal countries of origin—Continued.

Cotton, manufactures of		$552,774
United States	$218,100	
United Kingdom	190,074	
Germany	69,450	
France	36,707	
Spain	19,742	
Italy	14,591	
Earthen, stone, and china ware		16,736
Germany	13,144	
United Kingdom	1,915	
France	1,001	
United States	589	
Fibers, vegetable, manufactures of		85,721
United Kingdom	32,409	
United States	29,770	
France	18,466	
Fish, preserved, and fish products		114,134
United States	109,455	
Fruits and nuts		6,567
United States	3,240	
Spain	1,487	
France	1,464	
Glass and glassware		9,563
United States	5,605	
Germany	3,099	
Gold and silver currency (United States)		359,435
Grease for soap stock		43,522
United States	37,856	
Gums and resins		13,662
United States	13,583	
Hats and caps		65,530
Italy	47,364	
United States	9,070	
France	4,626	
Germany	2,292	
Iron and steel, manufactures of		404,159
United States	287,381	
United Kingdom	63,568	
Germany	37,022	
France	10,438	
Belgium	3,752	
Jewelry, including watches and clocks		7,299
France	3,588	
United States	1,532	
Italy	1,141	
Leather and manufactures of		72,964
United States	59,455	
France	4,988	
United Kingdom	3,860	
Germany	3,188	
Spain	1,312	
Malt liquors, beer in bottles		39,152
Germany	30,572	
United States	5,240	
France	2,601	
Metals and manufactures of		11,976
United States	7,939	
Germany	2,375	
United Kingdom	1,016	
Oils		155,934
United States	147,309	
Spain	2,013	
Germany	1,609	
France	1,653	

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Imports in 1905, with principal countries of origin—Continued.

Paints, etc		$14,365
United States	$9,117	
United Kingdom	2,577	
Germany	2,507	
Paper, and manufactures of		28,249
United States	13,170	
Germany	7,945	
France	3,053	
Spain	2,837	
Perfumery and cosmetics		15,552
France	10,822	
United States	3,078	
Germany	1,082	
Provisions, including meats and dairy products		138,195
United States	72,834	
Germany	56,101	
France	4,870	
Rice		201,329
Germany	127,704	
United Kingdom	35,334	
United States	31,613	
France	4,868	
Rubber, manufactures of		6,886
United States	4,286	
Germany	1,300	
Soap		22,922
United States	22,382	
Sugar and confectionery		26,597
United States	22,320	
Tobacco, manufactured		2,794
Cuba	2,365	
Umbrellas and canes		14,229
Italy	8,017	
France	1,730	
United Kingdom	1,366	
Germany	1,319	
United States	960	
Vegetables		29,349
United States	16,620	
Cuba	4,937	
Spain	3,654	
France	2,149	
Vehicles		15,364
United States	14,914	
Wines, liquors, and distilled spirits		22,900
France	10,290	
Spain	4,394	
Germany	2,988	
United States	2,693	
Italy	2,142	
Wood and manufactures of		96,182
United States	87,355	
Germany	4,719	
United Kingdom	3,072	
Wool and manufactures of		16,412
Germany	6,461	
United Kingdom	5,105	
France	2,667	
United States	989	
All other articles		112,513
United States	55,568	
Germany	25,394	
France	18,655	
United Kingdom	4,568	

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EXTENSION OF AMERICAN TRADE.

American manufacturers and producers who are seeking new and enlarged foreign markets would do well to consider the trade possibilities disclosed in the foregoing table showing the character and distribution of Santo Domingo's purchases abroad in the last calendar year. The gratifying fact appears that while the share of the United States in that trade had averaged barely 50 per cent in the last decade, it has now increased to 59 per cent. An analysis of the items, however, will show that this share should be much greater in volume as well as in percentage. As respects the following items the percentage share of the United States is reasonably satisfactory: Animals, books, etc., breadstuffs, chemicals, coal, preserved fish and products, fruits and nuts, glass and glassware, grease, gums and resins, iron and steel manufactures, leather and manufactures of, metals and manufactures of, oils, paints, paper and manufactures of, provisions (except dairy products, supplied chiefly by Germany), rubber goods, soap, sugar and confectionery, vegetables, vehicles, wood and its manufactures.

In nearly all these lines American manufacturers already control the bulk of the import trade of the island, although in some instances—for example, glassware and paper manufactures—the share could be easily increased.

WEAK SPOTS IN AMERICAN TRADE.

On the other hand, the showing of American exporters is comparatively poor, considering their advantages of superiority of workmanship, mechanical efficiency, and favorable transportation facilities, as respects the following items of import: Agricultural implements; cotton manufactures; earthen, stone, and china ware; manufactures of vegetable fibers; hats and caps; jewelry; bottled beer; perfumery; rice; umbrellas and canes; wines and spirits; woolen goods.

Take, for instance, the first item, agricultural implements—a great national specialty—out of a total importation valued at $38,831 the United States supplied only $15,394, while Germany furnished $19,230. Also in the case of pottery and china ware, Germany sold $13,144 in a total of $16,736. Italy supplied hats and caps to the value of $47,364 in a total importation of $65,530, while the United States furnished only $9,070. In the case of umbrellas and canes, in a total importation of $14,229, Italy supplied $8,017 against only $960 from the United States. In woolen goods, in a total of $16,412, Germany sold $6,461, while the United States furnished only $989. All these instances disclose weak spots in our trade relations with Santo Domingo that should be remedied by American export interests at an early date.

Besides the increase in American trade in 1905, another gratifying circumstance is that 63 per cent of the value of all importations was brought in American bottoms, the remainder arriving in German (22 per cent), French (7 per cent), British (3 per cent), Norwegian, and other vessels in order named.

IMPORTANCE OF DOMINICAN EXPORTS.

While the export trade of Santo Domingo does not, of course, present the same interest to our manufacturers and producers that the import trade does, it nevertheless has a vital bearing on the develop-

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ment of American commercial interests. We need the tropical products of the island to supplement the production of our own insular possessions, and, as a general proposition, where Santo Domingo sells the bulk of her natural products of soil, forest, and mine, there she will be apt to make the bulk of her foreign purchases. The healthy growth, therefore, of the Dominican export trade should be a matter of gratification to our export interests. The value of the total exports in the calendar year 1905 was $6,896,098, of which shipments to the United States represented a value of $4,484,271, or 65 per cent of the total. The principal exports, mentioned in order of relative value, were sugar, cacao beans, leaf tobacco, bananas, coffee, hard woods, hides and skins, and beeswax. Exports of sugar amounted to 105,972,400 pounds, valued at $3,292,470, constituting virtually the entire crop, of which about 99 per cent was consumed in the United States. The total shipments of cacao amounted to $2,211,873, of which $859,653 went to Germany, and nearly all the remainder to France and the United States. The total exports of leaf tobacco reached the valuation of nearly one-half million, the bulk being taken by Germany. The details of this export trade are shown in the following table, with indication of principal destination:

Animals, live stock		$42,097
Cuba	$41,937	
Bananas		257,017
United States	257,000	
Cacao		2,211,873
Germany	859,653	
France	745,065	
United States	587,812	
Chemicals, etc		31,798
Germany	18,061	
United Kingdom	5,410	
United States	2,784	
Cocoanuts		3,533
Germany	3,400	
Coffee		156,963
France	51,131	
Germany	47,856	
United States	39,992	
Cuba	10,434	
Copra, Germany		2,024
Gums and resins		3,202
United States	2,249	
Hides and skins:		
Goatskins		47,130
United States	46,149	
Hides of cattle		63,945
Germany	24,278	
France	21,591	
United States	17,565	
Honey		11,956
United States	9,756	
Leather		$15,054
Germany	$9,001	
United States	4,545	
Sisal and other vegetable fibers		21,777
Cuba	11,509	
United States	9,393	
Sugar, raw		3,292,470
United States	3,243,437	
United Kingdom	43,886	
Germany	4,221	

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Tobacco, leaf		$480,487
Germany	$244,147	
United States	143,951	
France	92,389	
Wax		94,669
Germany	42,614	
United States	25,164	
France	23,850	
Woods:		
Mahogany		22,235
United Kingdom	7,086	
United States	6,936	
France	4,653	
Germany	1,609	
Lignum-vitæ		69,982
United States	51,674	
United Kingdom	2,564	
France	2,108	
Lancewood spars		2,105
France	827	
Germany	825	
All other		40,832
United States	18,372	
France	9,710	
United Kingdom	3,279	
Germany	2,072	
All other exports		24,949
United States	17,209	

THE CARRYING TRADE.

Santo Domingo has eleven ports of entry, as follows: Monte Cristi and Puerto Plata on the north, Samana and Sanchez on the east, and Macoris, Santo Domingo, Azua and Barahona on the south coasts, and the land ports of Tierra Nueva, Commendador and Dajabon on the west along the Haitian frontier.

The foreign carrying trade is in the hands of the following five lines:

(1) Clyde's Coastwise and West India Steam Lines (American), plying between New York, Turks Island, and all Dominican coast entry ports except Barahona.

(2) The Hamburg-American Line (German), touching at the same Dominican ports (except Azua), Haitian ports, St. Thomas, Havre, Grimsby, and Hamburg.

(3) The Compagnie Générale Transatlantique (French), calling at Santo Domingo, Haitian and Cuban ports, Mayaguez, Porto Rico, Martinique, St. Thomas, Havre, and Bordeaux.

(4) The Herrera Line (Cuban), calling at Santo Domingo and Macoris and all ports of Cuba and Porto Rico.

(5) And the chartered vessels of the United Fruit Company (British and Norwegain), plying directly between Puerto Plata and Boston.

REASONS FOR AMERICAN TRADE SUPREMACY.

There are several good reasons why the United States should dominate the trade situation in Santo Domingo. In the first place, American exporters possess a decided geographical advantage over their European competitors. Santo Domingo City, the capital and one of the principal ports of entry, is only 1,535 miles south of New York and 920 miles southeast of the Florida coast. Secondly, the transpor-

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tation facilities afforded by the regular American line and the chartered steamers above mentioned are excellent. The American line enjoys by special concession from the Dominican Government the privilege of engaging in the coasting trade of the island, which is, with this exception, open only to the national vessels.

Furthermore, the relations, both political and commercial, between the United States and Santo Domingo have long been of the friendliest kind, and the Dominican people welcome the investment of American capital and are ready and anxious to give preference to American products, for there are no tenacious trade prejudices surviving from earlier colonial days for our exporters to overcome in Santo Domingo. American citizens have done more than any other nationality to develop the resources of the country, and American financial investments on the island are relatively very important. At least one-half of the capital invested in the sugar plantations, most of that in the banana industry, and in railroad and other industrial enterprises, is American. One of the two railroads in operation on the island—that between Puerto Plata and Santiago, a distance of 68 miles—belongs to and is operated by an American company.

When all these favorable circumstances are taken into consideration it is evident that the trade possibilities for American exporters are very promising in Santo Domingo. If they should make one-half the effort to extend their trade in this nearby field that they do in remote countries, the proportion enjoyed by the United States in the total import trade of the Republic would surely rise from 59 per cent, what it was in the last calendar year, to at least 75 or 80 per cent, the share that rightfully belongs to the United States.

BANK NEEDED.

OPPORTUNITIES FOR AMERICAN CAPITALISTS.

Vice-Consul A. W. Lithgow advises that the Puerto Plata consulate is constantly receiving inquiries as to opportunities for investments in the island of Santo Domingo, and as he has often heard the merchants there express the urgent need of a bank to facilitate their transactions, the following report is presented:

One of the greatest needs for developing the resources of the Dominican Republic is the establishment of a bank, which would aid its commerce, agriculture, and industries. This enterprise would reap good profits with no more risks than in other countries. Santo Domingo has a population of 600,000, but has not one bank in the whole country.

As there are no institutions where the merchants can be financially accommodated they are obliged to recur to their foreign commercial credits. On the northern side of the island the greater part of this business is done with Germany. These facilities are onerous, as can readily be understood. The merchant in Germany allows his correspondent here to draw at 90 days, and the same must be covered by produce shipped before maturity. The following are the products which, in the main, are sent to Germany: Tobacco, cocoa, coffee, wax, and hides. The foreign merchant discounts these bills at the rate

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of 6 per cent per annum, but where he obtains his great profits is by the commissions on the sales. He generally sells the produce when the draft is about to fall due, to cover himself, no matter what the state of the market may be. This is often disastrous to the shipper.

FORCED SALES BELOW COST.

Let us take, for example, the shippers of tobacco. The whole Santo Domingo crop virtually arrives in Hamburg within five months. The market is flooded, or made to appear to be. The speculators in this weed, knowing the conditions of the trade, take advantage of same, and consequently Dominican tobacco is often quoted in the Hamburg market at 20 marks the quintal (112 pounds). It seldom reaches 40 marks. At the former price the merchant here loses, for he has paid much more for it. The farmer could not raise it to sell at that price. This is where a bank would find its opportunity for business, where it could assist the merchant and at the same time profit thereby. It could advance its funds, holding bills of lading as guaranty, charging interest and commission for accommodation. The merchant would gladly enter into any arrangement of this kind, for then he could hold his produce until a satisfactory price is obtained.

Another source of profit would be the buying and selling of drafts. When there is no moving of crops, which on the northern side of the island happens from October to December and from February to May, drafts are very scarce, selling at from 2 to 3 per cent premium. From June to September, as the crops are being shipped, they are plentiful, and are bought at 2 to 3 per cent discount. Money can be loaned on good collateral at from 12 to 18 per cent per annum, and good notes can be discounted at an even greater rate.

A bank here should have connections with New York, Hamburg, Paris, and London. A capital of $300,000 would be sufficient to commence with, which could be augmented as the requirements demanded. A substantial concern would be able to obtain any fair concession from the Government.

LARGE FOREIGN TRADE.

The following custom-house figures will be valuable to anyone who may take this report under consideration: The aggregate foreign commerce in 1905 was $9,992,361; value of imports, not including specie, $2,736,828; value of exports, not including specie, $6,880,890. The expensive freight brings the expenses on specie shipments up to 2 per cent. Bank notes were probably included with the coin.

FINANCIAL STABILITY AND AMERICAN POSSIBILITIES.

In ten months the Dominican Government has deposited in New York, for account of its creditors, $1,000,000. I believe in the future of Santo Domingo, and am sure that a bank would be the means of helping the country in its progress. It should be established by Americans, who would influence trade, for it is a well-known fact that people will buy where there are best facilities.

Europe gives six months' credit on her goods. The most American commission merchants give is three months, and American manufacturers sell only for cash. With a responsible financial institution on

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the spot, American merchants and manufacturers could meet this competition of terms, making arrangements and drawing in favor of the bank, which should be willing to negotiate the notes.

RUBBER AND CACAO.

PLANTATION PROSPECTS IN ISLAND REPUBLIC.

Vice-Consul Lithgow, in response to a New Jersey inquiry for information on the planting of rubber and cacao in Santo Domingo, writes:

There is no rubber cultivated in this country, although it would grow well in this climate, as I have seen by a specimen in a garden. The quantity of cocoa exported from this port in the year 1905 was 9,642,898 pounds. The varieties of cacao planted here are Caracas, Cuban, and Guayaquil. The last named gives the best results, as it withstands droughts better than the others. The hearts of all these beans are purple, the color most preferred. The price paid for cocoa at present is $7.50 per quintal (110 pounds). The production throughout the country is increasing at the rate of 15 to 20 per cent per annum.

On clearing the land for cacao it is planted with yuca and plantains, which shades the cacao trees until they are grown. The yuca and plantains are used as food for man as well as to fatten hogs. Hogs always find a ready market and at a good price. After the cacao is grown it needs no shade. About the only enemy of the cacao is woodpeckers (carpintero), which are driven away by shotguns and rats. There are no Americans planting cacao on the island, but there are several Spaniards, Frenchmen, Belgians, and Englishmen. There is plenty of land to be had at $4 to $5 an acre. There are no roads, transportation being by pack horses. A good pack horse costs about $30, a donkey $15, a mule $60 American. Common laborers, in the interior where the farms are, are paid 30 cents American currency a day, but they receive free whatever food is raised on the place, such as plantains, yuca, and sweet potatoes. The clearing and fencing is done by the job. One bargains at a certain rate for the fields ready to plant at a maximum cost of $20 per acre American money. The men feed themselves. There are no internal taxes, not even on real estate. The export duty is $1, American money per quintal (110 pounds).

An Englishman who owns one of the largest cacao plantations here tells me that after the estate is producing it costs him $2.87 per quintal American to keep his estate in order and market the produce. A cacao plantation needs no fences after it grows up. Property and life are perfectly safe in this country, and no foreigner is ever molested by the political events. The natives are kind and hospitable, and demand good treatment from employers. In purchasing any land it is best to do so through a resident, for as soon as a foreigner inquires for land the prices boom far beyond their value.

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HAITI.

TASTES OF THE PEOPLE.

AMERICAN GOODS POPULAR ON THE ISLAND.

Responding to a New York request, Consul L. W. Livingston, of Cape Haitien, furnishes a statement on trade condition in the Republic of Haiti as follows:

The proximity of Haiti to the United States, the primitive manners of the people, and the undeveloped condition of the country make it a natural field for American commerce and enterprise. American exporters were contented in the past to supply the demand for the coarser provisions, and this demand was so large, indeed, that more than half the importations came from the United States. Of the native population, estimated at about 1,250,000, a vast majority has no demand for the luxuries of Europe or the United States. American merchants have now learned that the educated class is increasing and that the masses also have need of clothing. The result is that a large quantity of American denims and sheetings and an increasing quantity of more delicate articles are now being imported. Although no reliable general statistics of importations are available at this writing, it can be safely estimated that more than two-thirds in value of the total importations come from the United States. The bulk of the remaining importations conforms to tastes acquired in Europe by natives educated there and fostered by foreign merchants resident in Haiti, most of whom are Europeans.

With regard to exportations the conditions are quite the reverse, the great bulk of native products going to Europe, a considerable portion of logwood and a small quantity of other woods, goatskins, etc., only going to the United States. The rest of the logwood and practically all the coffee and cacao go to Europe. An idea of the extent of the exports may be obtained from a statement recently published by the Banque Nationale d'Haiti for the year ended September 30, 1905. The principal articles are: Coffee, 45,244,232 pounds; cacao, 4,924,383 pounds; logwood (including roots), 112,050,758 pounds; and cotton, 3,287,669 pounds. There is in addition a respectable quantity of cabinet woods, guaiac, hides, goatskins, honey, orange peels, wax, etc.

Americans are also awakening to the importance of taking part in the development of the natural resources of the country. A company is now constructing a railroad from Gonaives into the interior, where copper mines have been discovered and the railroad promises to develop into a system which will contribute greatly to the development of the country and the increase of foreign commerce.

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CUBA.

SUGAR CROP.

OPERATIONS THE PAST TWO YEARS.

Consul-General Steinhart sends from Habana the following statement of Cuba's sugar crop of 1905–6, showing production, exportation, and quantity on hand April 30, compared with April 30, 1905:

	1905.	1906.
EXPORTED.	*Sacks.*[a]	*Sacks.*
Habana	392,869	474,159
Matanzas	579,861	596,676
Cardenas	597,283	596,029
Cienfuegos	744,831	793,202
Sagua	298,961	296,331
Calbarien	222,989	283,452
Guantanamo	238,334	166,089
Cuba	69,988	51,768
Manzanillo	271,562	236,249
Santa Cruz del Sur	62,100	42,095
Nuevitas	63,290	122,300
Gibara and Puerto Padre	255,811	214,877
Zaza		
Trinidad	60,800	43,356
Total sacks	3,858,144	3,918,578
Tons	550,449	559,797
ON HAND.		
Habana	631,848	497,045
Matanzas	640,886	497,771
Cardenas	565,003	363,738
Cienfuegos	301,488	395,995
Sagua	141,580	146,596
Calbarien	249,682	198,285
Guantanamo	73,818	48,806
Cuba	15,549	29,105
Manzanillo	14,955	22,970
Santa Cruz del Sur	4,000	23,112
Nuevitas	20,200	4,300
Gibara and Puerto Padre	20,350	38,500
Zaza	14,900	15,025
Trinidad	2,500	15,012
Total sacks	2,696,659	2,296,910
Tons	385,238	328,130
Total of crop	935,687	887,927
Local consumption	15,130	15,540
	950,817	903,467
On hand January 1		19,450
Received in ports to April 30	950,817	884,017

[a] Sacks, 320 pounds.

CIENFUEGOS IMPROVEMENTS.

NEW RAILROAD AND HARBOR WORKS IMPROVE SHIPPING FACILITIES.

Consul Max Baehr writes from Cienfuegos that the splendid new iron pier of the Cuban Central Railway, the proposed construction of one by the United Railways of Habana, the material for which is already on the ground, and of another for the use of Sir William Van

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Horne's new road, coupled with substantial improvements of the old docks, have cleared Cienfuegos of the unenviable reputation of being the most expensive port in Cuba, and it will henceforth be known by the fine advantages offered to ships and exporters.

Besides this, the dredging of the harbor has been ordered by the Government and there is now available something like $200,000 for this purpose. This is the amount collected as harbor-improvement tax of 25 cents per ton on all imports instituted by the intervention government and levied and collected by the custom-house since January 1, 1899.

Four railways will enter Cienfuegos in future where heretofore the Cuban Central Railway has had a monopoly on moving the heavy crops of the entire district. Sir William Van Horne, who has built the new railroad line through the heart of Cuba from one end to the other, will build a railroad from Guines to Santa Clara and Cienfuegos, and the surveys for this proposed line, amounting to 205 miles, have already been approved by the Government, and all indications point toward early and rapid construction. The engineering corps, which is completing the terminal details in Cienfuegos, has instruction to push the work with all speed. Indications are that the line will have its terminal grounds and buildings on the bay front close to a point known as Punta del Medio.

BARBADOS.

MANJAK MINING.

QUALITIES OF PRODUCT IN ISLAND.

Consul Arthur J. Clare writes from Barbados that during the last few years he has received many inquiries relative to manjak (a grade of asphalt used in the manufacture of varnish), and the information required has been obtained and furnished to those interested. The following extract from a report on the San Fernando manjak field, Trinidad, made by the Government geologist, and published by the Agricultural News of Barbados, he thinks will prove of interest owing to the comparison between the Barbados and the Trinidad manjak:

Specimens obtained from some of the mines in Barbados have enabled some comparison to be drawn between the manjak from that colony and from Trinidad. The evidence obtained amply confirms the theory as to the formation of manjak veins put forward in the former report. Manjak has been mined in Barbados at greater depths than have been reached as yet in Trinidad, and higher percentages of petrolene are the rule. It appears, however, that this does not depend entirely upon the depths. Barbados manjak has, on the average, a higher percentage of petrolene and a lower percentage of inorganic matter than Trinidad manjak. Consequently it frequently has a lower melting point and a brighter luster. The columnar variety of manjak exists also in Barbados, occurring as a selvage to the veins of lustrous manjak with conchoidal fracture, which, however, is the most prevalent type in Barbados.

Precisely similar phenomena are described as characteristic of the gilsonite veins of Uinta. As in Trinidad, the columnar and conchoidal varieties differ in percentages of petrolene. One Barbados specimen, showing both types in contact, was analyzed with the result that the columnar variety gave 18 per cent and the con-

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choidal 35 per cent of petrolene. The loss of volatile matter on exposure to the air is also well exhibited by the Barbados manjak.

As the manjak in the San Fernando field is worked to greater depths, and especially when veins which do not crop out at the surface are mined, it may be expected that material equaling the best type of Barbados manjak in luster and percentage of petrolene will be found.

STEAM PLOWING.

GOOD RESULTS ON WEST INDIAN SUGAR ESTATES.

Many applications have been received by Consul Clare for lists of the principal importers of agricultural machinery in that island. Mr. Clare, therefore, writes:

Such information has always been furnished. At the same time attention has been called to the fact that very little modern agricultural machinery is employed, and that steam plows have never been used in Barbados. The following extract from the latest issue of the "West India Committee Circular," referring to the benefits derived from the adoption of steam plowing in two such dissimilar islands as Trinidad and Antigua, may prove of interest to our manufacturers of agricultural machinery:

"On the Caroni estate in Trinidad a considerable area of canes grown on land plowed by steam has been cut this year, and the average yield of plant canes per acre has been 34 tons, as compared with 23 tons from land cultivated under the old system. The total cost of cultivation of the steam-plowed lands, after allowing for wages and expenses of English plowmen, and for 10 per cent depreciation on the cost of the plows, proved to be somewhat less than under the old methods, so that the result is an increase of 50 per cent in the yield of canes per acre, without any increase in expenditure. In Antigua steam plows are now at work on Belvidere and Gunthorpe's, the two new central factory estates. On the former estate they are plowing a piece of land which would otherwise be practically untillable in its present condition with either ox plows or manual labor, and they are not only plowing the land, but pulverizing it very satisfactorily. On Gunthorpe's they are also doing excellent work on land which hitherto defied the old-fashioned methods of tillage. This is all very satisfactory, and with these results before the planters there is a probability of an extension of the system of steam plowing in the West Indies."

ST. CHRISTOPHER.

ENGLISH SALESMEN GET ORDERS.

AMERICAN NEGLECT OF TRADE IN THE CARIBBEAN SEA.

Consul Joseph E. Haven outlines the foreign commerce of the West Indian island of St. Christopher in the following practical report:

While a large amount of imports in this Presidency of St. Christopher-Nevis is supplied by the United States, yet in several instances

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American products of equal if not better quality which could be supplied, are poorly represented, if at all. This is somewhat indicated in the following table of imports for the years 1904 and 1905:

Article.	Great Britain.		United States.		1904.	1905.
	1904.	1905.	1904.	1905.		
Butter	$2,196	$1,206	$100	$109	[a] $3,863	[a] $4,633
Cheese	1-4	219	1,261	280	[a] 1,525	[a] 3,058
Haberdashery	38,588	49,5.1	902	616	[b] 1,342	[b] 602
Hardware	15,230	20,168	4,351	4,243	[b] 168	[b] 87
Cottons, woolens, etc.	87,695	113,7b4	2,461	4,294	[b] 3,893	[b] 5,185
Tobacco	387	388	6			
Rice	22,000	22,831				

[a] Canada. [b] Barbados.

As shown by the statistics, the amount of butter imported from the United States is little or nothing as compared with the amount supplied by either Canada or Great Britain. The fault lies not with American butter, but with the style of packing. In looking through American trade catalogues one can find firms supplying butter in "bricks" weighing 1 pound. This style of packing would not suit for trade in the West Indies, as there is the question of transportation on ships having no refrigerating facilities and the climatic conditions of the Tropics, which must be taken into consideration. Great Britain, Canada, and Denmark supply butter in 1-pound tins, the wholesale price ranging from 29 to 36 cents per pound, the selling price for same being from 36 to 48 cents per pound. Canada also supplies butter in tins weighing 28 pounds net, costing 25 cents per pound and selling for 36 cents. While the trade with this Presidency is not of great extent, yet the same conditions exist throughout these West Indian islands, and it would seem worth while for some American firm to take up the matter. In 1904 the cheese imported from the United States amounted in value to $1,261, but in 1905 there was a considerable drop, the amount imported being valued at only $280. These figures show an inverse ratio compared with the imports from Canada.

TEXTILES AND HARDWARE SHOULD COME FROM AMERICA.

In regard to cottons, woolens, linens, etc., there is a tremendous difference, for in the combined years 1904 and 1905 the imports from Great Britain along those lines amounted to $201,449 in value, while those from the United States for the same period only reached $6,755. Even Barbados supplied an amount valued at $8,078, this exceeding the amount imported from the United States by $2,323. In the line of haberdashery the conditions are about the same, the United States taking third place with goods valued at $1,518 (for the two years 1904 and 1905), against Great Britain and Barbados with their supplies valued at $88,099 and $1,944, respectively. This field offers excellent opportunities, and certainly the United States should secure a greater part of this trade.

The amount of hardware supplied by the United States is far below that imported from Great Britain, the latter aggregating $35,398 (for the years 1904–5), against $8,594 worth from the United States. Inexpensive hardware, tinware, and many small, useful articles for kitchen use, which can be obtained at any hardware store in the United States, are practically unknown here.

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Good, live salesmen, who thoroughly understand their lines, are needed to advance the interests of American trade. English firms are constantly sending out salesmen, but, with the exception of the boot and shoe trade, one rarely sees an American representative.

The import duties on the several articles mentioned are as follows: Butter, $2.43 per 100 pounds; cheese, $2.03 per 100 pounds; manufactured tobacco, 71 cents per pound; rice, 61 cents per 224 pounds; haberdashery, hardware, cottons, woolens, etc., and wallpaper, all 11 per cent ad valorem.

GUADELOUPE.

PACKAGE TRADE BUILDER.

PARCELS POST RECOMMENDED FOR AMERICA TO WEST INDIES.

Consul G. J. Bowens, of Guadeloupe, calls attention to the "parcels post" as a means by which the trade between the United States and the West Indies can be augmented. He writes:

There are no legal hindrances, as recent Congressional legislation has opened up the way. I have spoken to one of the Guadeloupe merchants concerning the matter and he thinks it would pay handsomely, as many would order small articles that they can not now on account of the great expense. Firms that handle a variety of merchandise like the American department stores could conduct the plan by an arrangement with the Quebec Steamship Company of New York City. As the Quebec steamers stop at from eight to twelve islands on each trip one readily sees the sources upon which he might draw for business in this line.

An agent could be sent down on one of the steamers to look after this business, or the vice-consul at the respective islands could be had at a reasonable commission to deliver the packages to the owner in presence of the customs officer. The one to three days' time saved by not having the goods put in lighters, placed on the wharf to be tallied, and avoiding the tedious "red tape" of the custom-house, as well as securing the article at a lower price, would, I am sure, be highly appreciated and serve as a stimulus to the export trade of the United States to the West Indies.

As it is now, if one wants a box of pens, a pair of shoes, or some other small article, the duty and other charges being so high, he must either forego his purchase in the States or wait his chance to have some friend who has a large order to let his package come along with said order. Whether for a roll of kodak film or an automobile, the signing of a "bill of lading" costs $2.

The parcels post between here and France is always used for packages less than 20 pounds, and 20 pounds or less could be sent from New York here by said route. The advantage in time is in favor of the States, as one could order and receive goods therefrom in 30 days, while it will take double the time from Paris. As shoes, shirts, and several other articles of American style would be popular here, I trust that the parcels post between the West Indies and the United States will soon be inaugurated. To any one interested in the adoption of this system I will be pleased to answer any further queries as to the same.

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BERMUDA.

FUTURE OF THE ISLAND.

NEW LAWS WILL PERMIT AMERICANS TO OWN PROPERTY.

Consul W. Maxwell Greene, of Hamilton, writes that Bermuda possesses a keen interest for Americans, as it lies off the coast of the United States and is the winter resort of so many Americans.

The British Government has inaugurated a system of rigid economies in colonial expenditures which closely affects Bermuda. Large sums have been spent from time to time on fortifications, batteries, roads, buildings for quarters, barracks, etc., which have made Bermuda practically one great fortification. The navy-yard and floating dry dock are on a large scale. The navy and military pay rolls have distributed great sums of money to the benefit of trade, and the people of the colony became accustomed to regard the Imperial Government as the source of all their prosperity.

Now, by the reduction of the troops to one regiment and the naval establishment to a captain's command, and all public works' extensions stopped, Bermuda is brought to face the problem of learning to be self-dependent. The tourist business is expected to restore some revenue, and the British authorities are furthering aid along this line by sanctioning new laws, which will allow aliens to hold real estate and build hotels. When these bills are passed it is expected that many Americans will avail themselves of these privileges. The colonial officials are now at work on a plan to erect a modern $300,000 hotel. The deepening and widening of the channel from the outer sea into the large land-locked harbor of St. George is now being discussed. A coaling station is then to be placed in the inner harbor. During the past year business has been fairly active. The lack of industries has been a hindrance to growth in trade. A small industrial beginning has been made by the establishment of a cigar factory, the wrappers to be grown on the islands. It is expected that sufficient wrapper tobacco can be raised to supply the factory, with a surplus for export.

HURRICANE INSURANCE.

INDEMNITY FOR LOSS FROM FLOOD AND WIND.

Mr. Hesketh Bell, late administrator of Dominica, in a letter to the London Times on the question of the insurance of estates in the West India Islands against the risk of damage by hurricanes, announces that a scheme has been worked out under which underwriters at Lloyds have agreed to insure planters against that risk. Jamaica is very much concerned in this arrangement, because of her experience in recent years with hurricanes. Between 1844 and 1874 there is no record of a hurricane in Jamaica. The one in 1874 was followed by a severe one in 1880 and a mild one in 1886, and then there was not another break until 1893, when great damage was done to banana cultivation on the island. The underwriters have agreed to include damage done by any sort of wind and its immediate consequence in the way of floods or otherwise occurring within a period of twenty-four hours. There are some phases of the question yet to be worked out, but it is said that there is no question of the ultimate success of the scheme, and policies are already issued as to the effect of hurricanes upon the crops and upon buildings.

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NORTH AMERICA.

THE DOMINION OF CANADA.

PERSISTENT EFFORTS TO INCREASE FOREIGN TRADE.

EXPORTS AND THEIR DISTRIBUTION—PERCENTAGE OF UNITED STATES.

The value of Canadian exports during the financial year of 1905 aggregated $190,854,946. Thirty-three per cent was composed of animals and their produce, 15 per cent agricultural products, 17 per cent forestry products, 16 per cent mine products, and 11 per cent manufactures. The distribution of these exports was as follows:

	British Empire.	United States.	All countries.
Manufactures	$10,052,186	$8,280,842	$21,191,333
The mines	1,545,090	28,764,461	31,982,329
The fisheries	4,047,786	4,598,564	11,114,818
The forest	12,908,331	17,837,049	33,235,683
Animals and their produce	57,088,634	5,906,259	63,337,458
Agricultural products	22,935,904	5,084,640	29,994,150
Miscellaneous	83,839	9,950	49,675
Total	108,579,770	70,426,765	190,854,946

The percentage of distribution was: British Empire, 50.5; United States, 36.5; all other countries, 13.

The value of Canadian manufactures exported to other countries in the years indicated was as follows:

	Great Britain.	British Empire.	United States.	All other countries.
1900	$5,625,073	$7,670,433	$4,857,413	$6,553,854
1901	6,652,336	9,028,969	4,963,247	6,988,239
1902	7,322,602	10,425,443	6,024,373	8,037,527
1903	6,728,293	10,363,380	8,236,129	10,261,587
1904	6,281,094	10,163,586	7,416,498	9,700,463
1905	6,378,419	10,052,186	8,280,842	11,139,147

The foreign trade for the ten months ended April 30, 1906, reached the total of $435,742,955, or nearly $69,000,000 more than for the corresponding period of the year previous. The exports for the ten months, as compared with the previous year, were as follows:

	1905.	1906.
Mines	$24,622,986	$27,490,993
Fisheries	8,882,788	13,168,905
Forests	24,802,682	28,537,996
Animals and their produce	53,082,323	56,645,364
Agricultural products	25,709,620	44,102,260
Manufactures	16,811,351	19,748,497
Miscellaneous	29,653	63,142
Total	158,941,403	189,757,157

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ANNUAL BUDGET.

DOMINION REVENUES—TARIFF CHANGES AND IMMIGRATION.

Consul-General John G. Foster, of Ottawa, sends a report of the budget speech delivered by Finance Minister Fielding in the Dominion house of commons, which estimates the revenues of Canada for the fiscal year ended June 30, 1906, at $79,000,000.

The expenditure, chargeable to consolidated fund, for the same year, the minister estimates at $66,500,000. He also estimates an expenditure, chargeable to capital account, of $15,500,000, or a total expenditure for the current year of $82,000,000. The imports of Canada during the ten months to May 1, 1906, are stated to have been $230,345,257, against $209,551,815 for the same period of 1905. The total exports during ten months of the fiscal year 1906 aggregated $205,397,698, against $162,389,597 for the same period of 1905. The net debt of Canada June 30, 1905, was $266,224,166. Estimating the population at 6,000,000, the minister places the per capita debt at $44.37. In 1896 it was $50.61.

CERTAIN MACHINERY AND STEEL RAILS FREE OF DUTY.

The minister announced that the government expected to bring in a revision of the customs tariff in November, 1906, session of parliament. In the present budget speech the only customs measures provided for are as follows: (1) The continuation for six months of exemption from duty of beet-sugar machinery and machinery used for alluvial gold mining to December 31, 1906. (2) Old steel rails sent abroad to be rerolled are to be readmitted into Canada upon the payment of a duty of 25 per cent on the value of the labor employed in the work of rerolling, provided that this arrangement shall not continue longer than until the establishment in Canada of any factory or mill for the doing of this work.

The amount of American silver sent out of Canada under the arrangement with Canadian banks is placed at $23,750.

The immigration into Canada during the ten months of the present fiscal year has amounted to 117,585, as compared with 99,309 for the same period of last year. Of this immigration the number from the different countries was as follows:

Countries.	1906.	1905.
From continental Europe	23,739	23,087
From United States	43,237	31,969
From the United Kingdom	50,609	43,703
Total	117,585	99,309

Estimates are made for the next financial period for nine months to end March 31, 1907, which will hereafter be the termination of the Canadian fiscal year.

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TRADE TENDENCIES.

BRITISH COMMISSION WILL SEEK REASONS FOR SMALL SALES.

Consul R. S. Chilton, jr., quotes a Toronto newspaper statement that the British Board of Trade will send a commission to Canada to discover the nature of the competition that is encountered by British manufacturers in Canada, upon which the paper comments:

When it is remembered that the products of British factories enter this country at two-thirds of the ordinary duty, it is remarkable that they have not made greater headway. Between 1897, when the British preference was begun, and 1905 the dutiable imports from Great Britain increased by about $16,000,000, while the dutiable imports from the United States increased by $38,000,000. The increase in the British imports was mainly in cottons and woolens. And right at this point, where something has been accomplished, the Canadian manufacturer complains that he is injured by the competition of the English and Scotch factories.

This is a notable instance of nature, geographical proximity and social and commercial habits being stronger than law. Canada has the necessary equipment of a manufacturing country, including mines, forests, and water power. All the necessaries of life and most of the conveniences and luxuries are produced within its own boundaries. As its great water powers are developed it will tend to become more and more an industrial country, and to require less and less from abroad. In the meantime the proximity of the more advanced United States has the natural result, first, of promoting the sale of American manufactures in Canada; next, of arousing in Canadians the ambition to manufacture similar goods for themselves, imitating, adopting, and varying American inventions and processes of industry.

In these facts may be sought the cause of the partial failure of the British preference. What Canadians do not or can not produce for themselves they are apt to seek in the United States. Near the border line similarity of conditions and habits conduces to this result. Such things as stoves, refrigerators, wagons, and farm implements illustrate this similarity. If a Canadian manufacturer finds that some new device is giving his American competitor an advantage over him he adopts it or improves upon it. In this keen rivalry it is very difficult for the old country manufacturer to take a part. It is in staples like cottons, woolens, and certain prepared foods that the British manufacturer holds his own.

ONTARIO.

LARGE PRODUCTION OF NICKEL.

Consul G. N. Ifft, of Chatham, forwards a summary of a report by Prof. A. P. Coleman for the Ontario bureau of mines on nickel production:

The only real competitor of Ontario as a nickel producer is the French penal colony, New Caledonia, in the South Seas. Though

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the United States has dropped out of the race as a producer of nickel ore, it is still one of the most important countries for the refining and utilization of the metal nickel, much the greater part of the Canadian metal being treated at Constable Hook, New Jersey.

The Sudbury nickel field has long been known as the most important source of that metal in America, if not in the world, but the work of the last three years has brought out more and more strikingly the unique character of this mining region. It has been proved that all the ore deposits of any economic importance are at or near the outer margin of a huge laccolithic sheet of eruptive rock a mile and a quarter thick, 36 miles long and 17 miles wide. This sheet is now in the form of a boat-shaped syncline, with its pointed end to the southwest and its square end to the northeast. The rock composing this sheet is norite at the outer and lower edge, merging into granite or granodiorite at the inner (upper) edge. The ore bodies are round the margin of the norite, or along dike-like offsets from it, and have evidently segregated from the rock while still molten, though they may have undergone later rearrangement by circulating water.

In a chapter devoted to the uses of nickel it is pointed out that Switzerland, Austria-Hungary, and France within the last few years have adopted pure nickel instead of the nickel-copper alloy for their coinage. The pure metal does not tarnish or change color, but keeps bright and attractive, and, as it is harder, the imprint stands wear much better. It is more difficult to counterfeit, since the minting requires more powerful presses. "Why," asks Professor Coleman, "should not Canada, the producer of half the nickel of the world, replace her ugly cents by clean, untarnishable nickel coins, almost as handsome as silver and much more durable." Canada is presently to have a mint, and it should begin its work by coining 1-cent and 5-cent pieces of pure nickel, making use of a distinctively Canadian metal.

WORLD'S PRODUCTION OF NICKEL.

The nickel production of the Sudbury field for the calendar year, 1904, is given as 4,729 tons, valued at $1,513,280, and the total production of the district since the discovery of the nickel deposits there up to and including the year 1904, at 43,877 tons, valued at $12,660,069. A table giving the world's production of nickel (in metric tons) accompanies the report. Discarding fractions of tons, this table is as follows:

Year.	Sweden and Norway.	New Caledonia.	Canada.	United States.
1889	80	1,382	377	115
1890	100	1,634	651	101
1891	125	2,494	1,880	54
1892	97	1,696	1,095	42
1893	90	2,493	1,807	22
1894	90	2,422	2,226	4
1895	40	2,548	1,764	5
1896	20	2,707	1,541	8
1897	.....	2,858	1,813	11
1898	.....	3,648	2,508	5
1899	.....	4,205	2,605	10
1900	.....	4,526	3,211	4
1901	.....	5,210	4,168	3
1902	.....	4,024	4,850	3
1903	.....	4,750	6,348	52

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TOBACCO GROWING.

The farmers of Kent and Essex counties are this year planting more tobacco than ever before in the history of tobacco raising in this section. This is due to several causes. The crop last year was very profitable. Many farmers who last year raised sugar beets for the Marine City, Mich., sugar factory, but who lost that market with the failure of the sugar company, are planting tobacco instead of beets. The government's announcement of the establishment of an experimental tobacco farm in Essex has also stimulated interest. The growers themselves have been carrying on experimental operations for years, and believe themselves able to grow better tobacco this year than ever before. Statistics just issued give the value of the tobacco crop of Kent and Essex counties for 1905 at $104 per acre, or a total of $686,400 for a total production of 8,580,000 pounds from 6,600 acres. The average yield was 1,300 pounds an acre, and the average price was about 8 cents per pound. The native leaf has obtained a ready sale to Canadian manufacturers. As an example of how profitable tobacco growing may be made, the crop of John Little, of Harrow, Ontario, is instanced. Mr. Little, on scant 6 acres, raised last season 11,842 pounds of tobacco, which was purchased by the Empire Tobacco Company at 8½ cents per pound, in all $1,006, or over $167 an acre.

OFFICIAL PLAN TO FURNISH ELECTRIC POWER.

Consul James M. Shepard, of Hamilton, reports that a bill, enacted during the closing hours of the Ontario legislature, looking to the cheapening of electric power in that Canadian Province, should be of interest in the United States.

The proponent of the bill stated that current could be procured at Niagara at $12 per horsepower, and could be carried to Toronto, 85 miles, and sold for $17. The main feature of the bill is the appointment of a permanent commission to apportion the cost of transmitting electric current among the municipalities which decide to go into the scheme. The commission will negotiate with the development companies for a supply to meet the stated demands. If the companies are reasonable in their prices, contracts will be entered into on behalf of the municipalities. In case the prices are not satisfactory, the commission will have power to erect a development plant or expropriate. The price of power at the point of development will be the same to all, no matter what amount of power may be used. The cost of transmission will depend upon the amount and the distance.

The government will borrow money on the credit of the Province to carry the scheme into execution. The cost will be adjusted by accountants and engineers in the employ of the commission, and a rate of 4 per cent will be charged the municipalities for the capital outlay; then, in addition, the municipalities will pay sufficient to provide a sinking fund to retire the securities issued by the Province in thirty years. The cost of maintenance will be paid directly to the commission by the municipalities.

The scheme does not apply to Niagara Falls district alone. Wherever there is a development the municipalities in the district may apply

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to the power commission, and the electric power will be supplied. There are other features of the bill which are worthy of more than the mere stating. The commission may furnish power to railways or distributing companies, and whatever profits accrue will go toward lightening the burdens of the municipalities. For the purposes of this scheme the Conmee bill will not apply. The commission is given power to regulate rates charged by municipal companies for electric light, power, or heat.

WHITEFISH DISAPPEARING.

Consul Harry A. Conant reports from Windsor that Canadian fishermen along Detroit River and Lake St. Clair are complaining of the scarcity of fish this spring. He says:

The fishermen are not doing sufficient business to pay expenses. The scarcity of whitefish and perch is felt more than the other kinds of fish. A few years ago this class of fish was found in abundance in the Detroit River. To-day these fish are much in demand, and the fishermen are unable to supply their customers. Fishermen claim that the supply of 25,000,000 fry of whitefish sent out by the Sandwich hatchery to replenish the Great Lakes is not near the amount necessary to meet the depletion of this variety of fish by reason of fishing and the destruction by other aquatic inhabitants of the large waters and rivers. Millions of mullets, suckers, carp, and other varieties feed upon the whitefish fry, and it is estimated that only one whitefish minnow out of a thousand reaches maturity. Another factor in this lack of fish is thought to be the dredging work being carried on at Amherstburg.

The hatchery at Sandwich has a capacity for handling over a hundred million whitefish fry, but they can not secure the whitefish during the spawning season to extract the eggs. The whitefish is fast disappearing and will soon be as rare as the buffalo on terra firma. "The department expends for the propagation and protection of inland fisheries in Ontario, Quebec, Manitoba, and the provinces in the northwest only $50,000 a year for all purposes, while the sum of $550,000 is expended for the advantage of fishermen in the maritime provinces," declared a Windsor fisherman who has spent many years in the business. Fishermen have observed, especially near French River, how the whitefish deposit their eggs. The water on the shoals is very shallow. The rocky beds would be literally covered with spawn, when suddenly schools of soft fish would appear and the eggs disappear, only a fraction being left in the crevices of the rock. This war of extermination is aided by fishermen pursuing the whitefish. Thus between the devastation wrought by the soft fish and man, whitefish are rapidly disappearing. In Lake Erie, where 2,000 pound nets are in use, the greedy soft fish have been taken from the lake in large quantities and the whitefish decrease is small, although perceptible. The plan to offer a bounty for catching the destroyers and at the same time appropriating a little more money for the propagation of whitefish fry, meets with hearty indorsation by all fishermen in this district.

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NOVA SCOTIA.

AMERICANS SECURING BUSINESS BY PERSONAL CANVASS.

Consul George N. West reports that business of all kinds in Sydney and that vicinity of Nova Scotia is showing a great improvement over the conditions prevailing for the past three years. His letter continues:

I am informed by merchants that their sales are much larger in all classes of goods and the people are buying in a greater degree for cash. Representatives of wholesale houses also state that they are finding business in their respective lines far in excess of their expectations by reason of liberal orders from merchants. The value of having personal representatives of American manufacturers visit merchants here has been shown in a strong manner by a statement made to me by a representative of an American firm visiting here lately, when he was successful in opening up six new accounts, whereas during the past two years he had difficulty in retaining former customers, owing to the depression.

In visiting the different merchants I note in almost every instance the display of American goods in their stores, which have been, with few exceptions, purchased through Canadian wholesale houses, in some instances coming in direct competition with goods of the same class manufactured in Canada. If representatives of American firms visited here, they could no doubt largely increase their sales.

Within a radius of 20 miles of Sydney there is disbursed for wages to employees of the coal, iron, and steel companies and other manufacturing enterprises about $500,000 monthly, and this sum will rather be increased than decreased in the future. There has been a large arrival this spring of miners from England, and more are expected. No difficulty is experienced by them in securing work in the mines here. A large number of houses are being erected around the various collieries of the Dominion Coal Company and the Nova Scotia Steel and Coal Company. The former company are building comfortable dwellings, with water and sewerage connections, of six to eight rooms each, and selling them to the miners on easy terms.

A large steamer of 7,000 tons carrying capacity is now in port to load a cargo of steel rails of 70 pounds weight for Vancouver, British Columbia, for use on a railroad reported to be a branch of an American railroad being constructed from the United States to reach that port to secure East India trade.

BRITISH COLUMBIA.

RECORD YEAR IN MINING.

Consul Abraham E. Smith writes from Victoria that the official returns of the mining product of British Columbia for the year 1905 are at last available. He says:

On January 18, 1906, I sent a dispatch giving the authorized estimate of the mineral production of the Province for 1905, which was

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summarized as follows: Metalliferous product, $15,913,000; nonmetalliferous product, $5,050,000; estimated total for 1905, $20,963,000.

The official statement indicates the product was underestimated, the correct returns showing the total product to be $22,461,325, or $1,498,325 in excess of the figures then given, and $3,483,966 more than that of 1904. The amount and value of the different mineral products in British Columbia for the last two years are as follows:

Mineral.	1904.		1905.	
	Quantity.	Value.	Quantity.	Value.
Gold, placer ..... ounces..	55,765	$1,115,300	48,465	$969,300
Gold, lode ..... do....	222,042	4,589,608	238,660	4,933,102
Silver ..... do....	3,222,481	1,719,516	3,439,417	1,971,818
Lead ..... pounds..	36,646,244	1,421,874	56,580,703	2,399,022
Copper ..... do....	35,710,128	4,578,037	37,692,251	5,876,222
Coal ..... tons..	1,253,628	3,760,884	1,384,312	4,152,936
Coke ..... do....	238,428	1,192,140	271,785	1,358,925
Other items	.....	600,000	.....	800,000
Total	.....	18,977,359	.....	22,461,325

Every item has increased except placer gold, which shows a falling off of $146,000. The mineral product for 1905 is the largest ever before known in one year in British Columbia, exceeding by $2,374,545 even the record year of 1901, when the product was $20,086,780.

The following table shows the value of the mineral production of British Columbia for all years up to and including 1905:

Gold, placer	$67,772,703	Coal and coke	$73,786,754
Gold, lode	36,385,058	Building stone, bricks, etc..	4,560,800
Silver	23,688,688	Other metals	252,999
Lead	14,958,161		
Copper	27,258,013	Total	248,663,176

From this it will be seen that coal mining has produced more than any separate class of mining, a total of $73,786,754, followed next in importance by placer gold at $67,772,703, and third by lode gold at $36,385,058. The metal gold, derived from both placer and lode mining, amounts to $104,157,761, the greatest amount derived from any one metal mineral, the next important being copper, of a total gross value of $27,258,013, followed by silver at $23,688,688, and lead at $14,958,161. The total number of miners employed in British Columbia during 1905 was 3,710.

The total product of all the mines in 1890 was $2,608,803; in 1898 it was $10,906,861, and in 1905, it reached, as stated, $22,461,325. The mining industry of British Columbia is in a generally healthy and progressive state as regards the production of both metallic and nonmetallic minerals. It is the main industry of the Province. During 1905 more mines paid dividends than during any previous year. Returns for the four months of the present year indicate that the production of 1906 will far exceed that of 1905.

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NEWFOUNDLAND.

PROSPERING BRITISH COLONY.

COMMERCE INCREASING WITH CANADA AND GREAT BRITAIN.

Consul George O. Cornelius, at St. John's, submits a report showing that the remarkable and steadily sustained prosperity which Newfoundland has enjoyed of late years is an inspiration to American exporters for greater efforts in order to secure a preponderance of its trade. The consul writes:

During the past decade Newfoundland's imports have grown from $5,986,861 in 1895–96, to $10,279,293 in 1904–5, while its exports have risen from $6,638,187 to $10,669,342 during the same period, an expansion of the total trade from $12,625,044 to $21,148,635. During these ten years the imports from Britain have increased in value from $1,975,754 to $2,654,908, those from Canada in value from $2,231,641 to $4,105,569, and those from the United States in value from $1,973,721 to $2,750,114. In the year before last imports from the United States had reached their high-water mark of $2,991,022, and those from Canada $3,423,225; but it will be observed that the former have declined nearly $250,000, while the latter have increased almost $700,000.

An analysis of the trade returns of the Colony, which are only compiled annually, and are not available until tabled in the colonial legislature in the month of March following the fiscal year which they embrace, show that in the great majority of instances the import of commodities from Canada had increased at the expense of the United States, a fact attributable in part to the friction arising out of the fishery dispute between Newfoundland and the United States.

STABLE CONDITIONS AND EXPANDING MARKET.

There is need for vigorous action by American manufacturers if they would hold this growing and profitable market. The prosperity of the island is so staple and its trade conducted on such conservative lines that insolvencies are rare and its chief commercial concerns enjoy a high rating with credit agencies. The financial standing of the colony is such that its treasury reports a surplus of $134,000 for the last fiscal year, making the sixth successive surplus in as many years, out of which the Government has set aside a cash reserve of $450,000 and employed the remainder in adding to the appropriation for public services. The revenues, which are almost altogether obtained from customs duties on imports, have grown in amount in each succeeding year, despite the removal of taxation from fishing, farming, and mining requisites and from flour, molasses, and kerosene oil, staple necessaries of the masses of the people.

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LINES FOR AMERICAN EXPANSION.

The subjoined list shows some of the lines in which American trade could be improved, the figures being those of the imports last year:

Articles.	United States.	Canada.	Articles.	United States.	Canada.
Butter	$18,000	$98,000	Furniture	$5,300	$36,000
Canvas (sail)	18,000	26,000	Leather and its ware	102,000	228,000
Coal	44,000	342,000	Medicines	141,000	42,000
Flour	501,000	1,112,000	Tea	1,100	61,000

HIGH POSTAGE HAMPERS TRADE.

In dry goods, woolens, cottons, groceries, hardware, machinery, meats, and canned goods, Canada is bettering her position every year, and a vigorous campaign by American commercial travelers is necessary to restore the balance of trade which formerly prevailed. Not the least serious factor in hampering American trade with the Colony is the 5-cent postage rate which exists between them. Many American business men affix only 2-cent stamps to their letters, causing them to be refused frequently by the addressees in the island, because of double rate for the unpaid portion of the rate at which they are taxed.

PROFITABLE FISHING OPERATIONS.

The catch of cod by the island's fishermen during the calendar year 1905 was larger than usual because of a short catch by the French, Norwegian, Canadian, and American fishermen. The prices increased to $7.25 per 112 pounds, a figure unrivaled in the modern annals of the colony, and yielding a return of $7,425,000 for the total catch, as against $6,150,000 in 1904, an increase in value distributed among the fishing population of $1,275,000. This is the third highly successful year the colony has enjoyed, the shortage in the Norwegian output of cod-liver oil in 1903 enabling the Newfoundland fishermen to market their stock at an increased value of more than a million dollars, while in 1904 the effects of this were still felt and largely enhanced the monetary return for the twelve months' fishing operations.

The winter herring fishery, which important industrial pursuit is chiefly engaged in by Americans in the Bay of Island, on the west coast, took on a new aspect between October, 1905, and January, 1906, owing to the colonial ministry withdrawing certain privileges conceded to American fishing vessels previously. In his speech in opening the annual session of the Newfoundland legislature on March 1, 1906, the governor thus referred to this subject: "The fishery operations of the people of the United States on the west coast of the colony during the past season, while happily conducted without any breach of the peace, were attended with many vexatious circumstances. My ministers exercised most commendable forbearance in dealing with the same, and have received the assurance of His Majesty's Government that negotiations with the Government of the United States have been entered upon with a view to an early solution of the difficulties of the situation. It is hoped that legislation which at present appears necessary will thus be obviated."

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EXPORT BOUNTY ON HERRING.

A new herring fishery policy has been outlined by the governor's speech in the following terms: "Realizing the vast amount of wealth that is resulting from the prosecution of the herring fishery and the attention devoted to special methods of cure, in order to encourage our fishing population to turn the herring fishery of this colony to greater advantage than heretofore, my ministers will submit for your consideration a bill to provide for the granting of a bounty for herrings that are specially cured and exported."

The bounty is to be $1 a barrel on all herring cured on the so-called "Scotch method," and it is proposed to experiment with drift nets in the outer waters to determine if the fish can be secured there when not further inshore. By this means it is hoped to create an industry which will enable the colonial fisherfolk to be independent of the Americans and make it impossible for the latter to carry on their industry in these waters.

MEXICO.

EXTENDING MARKETS.

SUGGESTIONS FOR AMERICAN EXPORTERS—KNOWLEDGE OF SPANISH ESSENTIAL.

Consul J. A. Le Roy, of Durango, furnishes an interesting report on the American method of extending trade in Mexico. The timely advice the consul gives, if followed, would no doubt inure greatly to the benefit of American exporters, and would assist materially in augmenting the sale of their goods in that country. The report follows:

The business of selling American goods in Mexico by mail order has already spread not alone among Americans in the country, but latterly among Mexicans to a degree that is surprising. There have been complaints against the admission of goods in this way on the part of Mexican merchants. If they did not hold their goods at such ridiculous prices probably their complaints at these inroads into their trade would be received with greater sympathy. In Mexico the big hardware, implement, and general-supply stores are, as a rule, owned and managed by Germans; the dry goods establishments by Frenchmen; large grocery stores, as well as thousands of small grocery stores and commission shops, by Spaniards.

LOCAL CONSERVATISM.

There are of course Mexicans engaged in all these lines of trade, but not dominating any one of them. There is little competition or competitive spirit in a progressive sense. The chief idea of these foreigners engaged in the mercantile business in Mexico seems to be to sell their goods for just as great a margin of profit as standing habits of buying in the country will permit. The notion of encouraging new habits of

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buying, or of turning over capital frequently on a narrower margin of profits, does not seem to have dawned upon them. Their methods of store management are usually antiquated and unduly expensive; their stores are like big overgrown village stores, their clerks incompetent and poorly organized, and their stocks of goods unwieldy as well as ill chosen and mostly out of date.

Yet it is probably quite useless to conceive of trade in American goods in Mexico being expanded by the establishment of up-to-date American stores, handling American goods, and employing American methods throughout this Republic. Nothing is more certain than that the old-fashioned foreign wholesale and retail establishments which dominate internal trade throughout Mexico are singularly vulnerable to competition, while the Mexicans, especially the growing middle class, are not at all slow about taking up new ideas and new goods when these are put before them.

But the American who goes to another country, or to a new part of his own country, always "plays for the biggest stake," even if it involves him in the venture requiring the largest risks. In Mexico mining promises the largest returns, though by no means the safest. The American will, however, as a rule, undertake agriculture and the improvement of irrigable land on the dry plateau, where values are bound to increase simply with the passage of time and the betterment of transportation facilities, even without intelligent efforts at improvement; still less will the American take to the comparatively slow and cautious business of retailing merchandise. This being the case, American exporters must depend largely for the continuance and extension of their trade in Mexico upon their success in placing their commodities before indifferent or hostile foreign buyers, and through them before the people, and upon their natural advantages of proximity and acquaintance with the needs of the market to maintain their sales in lines already established.

METHODS OF OUR COMPETITORS.

American methods of putting their goods before the buyers in Mexico are, speaking generally, not so effective nor in the long run so economical as those of European selling nations, especially Germany. It is perhaps natural that a traveling man who is sent all the way from Germany to America should come better equipped with samples, with knowledge of the language, and understanding of its business wants and methods than the average traveler from the United States who simply "runs across the border" to see if perchance he can "pick up" a little business for his firm.

But it is hardly creditable to American enterprise that exporting firms which have already established lines of trade with Mexico should so commonly send on tours through this country men who may know everything about their lines of goods, but who do not know Spanish (sometimes not at all, often in a fashion that only invites ridicule), and do not know or care to learn the business methods of the country. Such men, striking Durango for instance, can go only to those German or other foreign houses where there is a buyer who speaks English (and the Germans are almost invaribly linguists). He must follow, in other words, simply the established lines of trade; he can not go outside of those lines, to work up new demands in other quarters,

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often enough among the smaller dealers whose establishments he affects to despise. And through lack of the language and of the intercourse which he might have while in the country, he is unable to see Mexico except through the eyes of the foreigners with whom he talks; his imagination and understanding of trade possibilities are not awakened, and he gains no new ideas of value for the benefit of his home office. Cheap traveling men, who can pick up orders in a brisk and breezy fashion in the West and Southwest of our own country, are not the men who may be expected to do business in Mexico. The professional "hustler" is quite apt to be of no use down here. Men of education and culture, with gentlemanly manners, and a knowledge of the language, its people, and their customs, are the sort of traveling men American firms need, not only for this country, but for all Spanish America; they can be found, usually in these very countries, and they are worth extraordinary prices.

KNOWLEDGE OF SPANISH ESSENTIAL.

The flood of American catalogues and circulars that is poured into this country does comparatively little good. In any event, there are but few lines where catalogues in English will be of help. And in those cases where catalogues and circulars are sent out in Spanish, the effect is quite often worse than if they were in English, owing to the ludicrous Spanish into which they are put. Not every graduate of a two months' course in a language "academy" in our cities, or every whilom sojourner in the Philippines, Mexico, or South America is necessarily equipped to make real translations into Spanish of matter that is in large part technical, and which, moreover, often describes new ideas or methods, the phraseology of which is unknown to the Spanish-American readers, and therefore needs to be put in a careful and even roundabout Spanish version. The amount of bad and laughable Spanish that is printed in the United States and mailed about the countries to the southward is vexing and oftimes amusing. Where it does not excite ridicule it offends the ideas of polite correspondence, through being merely a transliteration of the rather curt English sentences and forms, instead of a rendering into the elegance and courtesy of Spanish phrases. Some of our export associations of more or less doubtful standing are among the chief offenders in this respect. Good translators into Spanish from English are most commonly Spaniards or Spanish-Americans themselves who have a first-class knowledge of English. They are more often good translators into the Spanish than are men whose language is English, but who have learned Spanish, even though quite fluent in speaking it. In any event, the really good translator is the exception, and he is worth hunting up and worth high wages when he is found.

CREDITS, BANKING, AND PAYMENTS.

American firms entering this field of trade for the first time must be willing to adapt themselves to the credit system prevailing in foreign trade. European firms generally give six months' time and charge a small percentage. Dun & Co.'s mercantile agency is established throughout this Republic, banking methods are up-to-date, and business payments, if somewhat slow, are quite sure. As railroads and

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direct steamship lines carry shipments between the United States and Mexico, inadvertence regarding the routing of shipments or in regard to methods of packing is not so noticeably productive of injury to American trade interests as seems to be the case with many countries. In both these respects, however, there is too little attempt to get precise information or to take the trouble that should be taken on the part of a great many American shippers; American goods come here packed more poorly than those from anywhere else, or even than gods from another near by district of Mexico itself.

OPPORTUNITIES.

Special information has been and is from time to time given from this office regarding opportunities in the different lines of merchandise. One would suggest just now, in other lines, some special effort to place more modern irrigation machinery as well as other sorts of machinery for agriculture in this region. Torreon or Durango, or both places, might prove to be worth while as a depot of such machinery, several American manufacturing firms perhaps joining together to this end. Catalogues will not introduce such machinery; it must be seen in operation.

Comment has been made during the past year upon the increased sale of American threshing machines in this district. The wheat acreage continues to increase and will continue to increase for some time to come. There was a good crop in Durango this year, but hardly an average crop to the south, where most of the wheat in Mexico has hitherto been raised. The increased demand for wheat flour has made it appear that there is an actual shortage, and prices are equivalent to $1.50 gold per bushel or more. The tariff was reduced with a view to importations from the United States which have been made to some extent, but a speculative corner seems to have been formed and such importations have of late been at a standstill. There may be some chance for independent shippers of wheat from the United States to interfere with this corner.

MINING LAWS.

PROJECTED REVISION—TITLE TO COAL AND OIL DEPOSITS.

Consul Le Roy reporting on the possibility of changing the mining laws of Mexico, says:

There is talk of a comprehensive revision of the mining laws of Mexico, not with a view to any radical changes, but to make a more harmonious whole of the accumulation of legislative enactments, executive decrees, etc., that have grown up since 1891; also with a view to certain changes advocated by the mining interests in the matter of fixing of boundaries, size of claims, methods of registration, and payment of claim taxes. The project was also broached of restoring the former right held by the Government over deposits of oil and coal as over other mineral deposits.

It is the principle of Mexican mining law, inherited from Spanish law, that the title to mineral riches vests in the State, and not in the individual possessing the surface of the soil, and in granting mineral

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patents the Government gives the applicant only the right to remove the minerals. In practice a Mexican mining claim, so long as the requirements governing its issue are complied with, is to all intents and purposes the same as title in fee simple. The distinction in principle remains, however, to the extent that it gives the State full authority and control and the right to insist upon the conditions which it stipulates with regard to the development of the riches covered by the conveyance.

This principle of reserving fee simple in the State was abandoned at the time of the promulgation of the present mining law with reference to deposits of coal and oil, the rights to them passing with the title of the surface of the soil. It has been urged that the development of Mexico's coal and oil resources was not proceeding with the rapidity that it would if the large landowners did not possess the title to such wealth underneath them.

The Government has had a committee studying the advisability and the legality of a change of the law in this respect, making coal and oil deposits subject to the same general principles as are other mineral deposits, but the report is understood to have been adverse and the matter dropped.

VALUABLE SODA LAKES.

FUTURE SOURCE OF LARGE GOVERNMENT REVENUE.

The Mexican Investor calls attention to the fact that the Mexican Government owns a valuable property in the famous carbonate of soda lakes of the Bay of Adair, near the Gulf of California. The Investor says:

Under the blazing sun of the desert, surrounded by barren and bleak sand dunes, lie vast lakes of crystals of carbonate of soda, to all appearances great masses of snow and ice, but in reality a substance from which will be made millions of tons of soap and millions of panes of glass. At only one other place in the world is natural soda found under conditions which admit of industrial development, and at that place it must be shipped several hundred miles by rail, and many tons of water must be evaporated by coal to obtain a ton of the product.

The Mexican lakes are within 3,000 yards of the sea and the fierce sun and heat of the desert attend to the evaporation. The world's consumption is very large, amounting to several hundred thousand tons annually, and at present nearly all of it is manufactured from common salt with the use of expensive machinery. At Adair Bay, when the temperature is right, the water of the lake crystallizes into pure carbonate of soda, nature doing what man requires expensive machinery and vast amounts of coal to do.

The Mexican Government declines to dispose of these lakes to anyone, President Diaz believing that they may become sources of enormous income to the country, just as the nitrate of soda beds are to Chile. What it may mean to the soap and glass industry of Mexico may be judged when it is stated that at present manufactured soda, one of the principal items of cost, sells for $75 per ton in ports of the country, while the same article from Adair Bay may be delivered for less than one-third of that price. An estimate of an engineer is to the effect that there is enough soda on top of the ground to produce 100 tons daily for 75 years.

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EUROPE.

GREECE.

ROYAL SCHOOL OF NEEDLEWORK.

ATHENIAN GIRLS SKILLFUL LACE WORKERS—EMBROIDERIES FROM ANCIENT PATTERNS.

Consul George Horton, of Athens, furnishes an interesting report on the manufacture of lace by the women of Greece, and sends a number of photographs of exquisite patterns of ancient origin as well as modern designs.

There are 220 girls at work in the Royal School of Needlework and Laces at Athens, and there are branch schools under the same direc-

No. 1.—Cretan design, Byzantine influence.

tion at Aegina, Corinth, Salassi, Koropi, Kerate, Ithaca, in Greece; Monastir and Salonica, in Thessaly, and a large school in Crete. In all, about 1,000 girls are given employment.

The history of this industry is briefly as follows: After the war between Greece and Turkey, about eight years ago, Athens was filled with destitute Thessalian refugees. The women scarcely without exception knew how to weave on hand looms, as the country people of

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Greece largely make their own cloths. Lady Egerton, wife of the British minister, successfully undertook to set them at work and their cottons found ready sale in England. This practical-minded and benevolent lady next noticed the embroidery on the skirts of the peasant women's dresses, and on the sleeves of their jackets, and she was convinced that they possessed a real talent for embroidering. Thus were started the present royal schools of needlework. By the time the Thessalians were ready to return to their homes a nucleus of Athenian girls had become interested in the work and had taken it up.

The building in which the Athens school is now housed was donated by the King, who is a constant benefactor of this benevolent enterprise. The ground on which it is located was given by an Athens lady. The Princess Helene is the patroness of the schools and gives them her personal supervision, devoting several mornings of each week to this work. Greek embroidery is distinctive from that of any other country in its superior quality and in the beauty of the

No. 2.—Island design, Venetian.

designs. These latter have a certain historic interest, and are derived not only from the patterns in use among islanders, showing the successive Byzantine, Venetian, and Turkish influence, but also from the mural decorations in the ancient Mycenaean and Cretan palaces, and from the paintings on vases. The accompanying photographs illustrate this idea:

No. 1 is a Cretan design showing Byzantine influence. The Byzantine double eagles can be distinctly seen in the margin. It is worked out in many colors.

No. 2 is an island design showing Venetian influence; taken from an altar cloth.

No. 3 is from a gown found on a classical vase and is, therefore, an exact reproduction of ancient embroidery. It is now used for a matinee design.

No. 4 is a specimen of the sort made at one time extensively by the Venetians. Old lace of this kind is rare and expensive.

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No. 5* is an island design with the so-called rose-spray effect. It was copied from a handkerchief worn about the head by the women of the islands off the Turkish coast, and is now made into a small cushion.

No. 3.—Ancient classical design.

No. 6* is from the ceiling of the prehistoric pálace at Orchomenos, and was probably in blue and gold originally. It is now made in straw color, blue, and red.

No. 7* is an island design showing Turkish influence. The two slender objects are cypress trees, which are distinctively Turkish.

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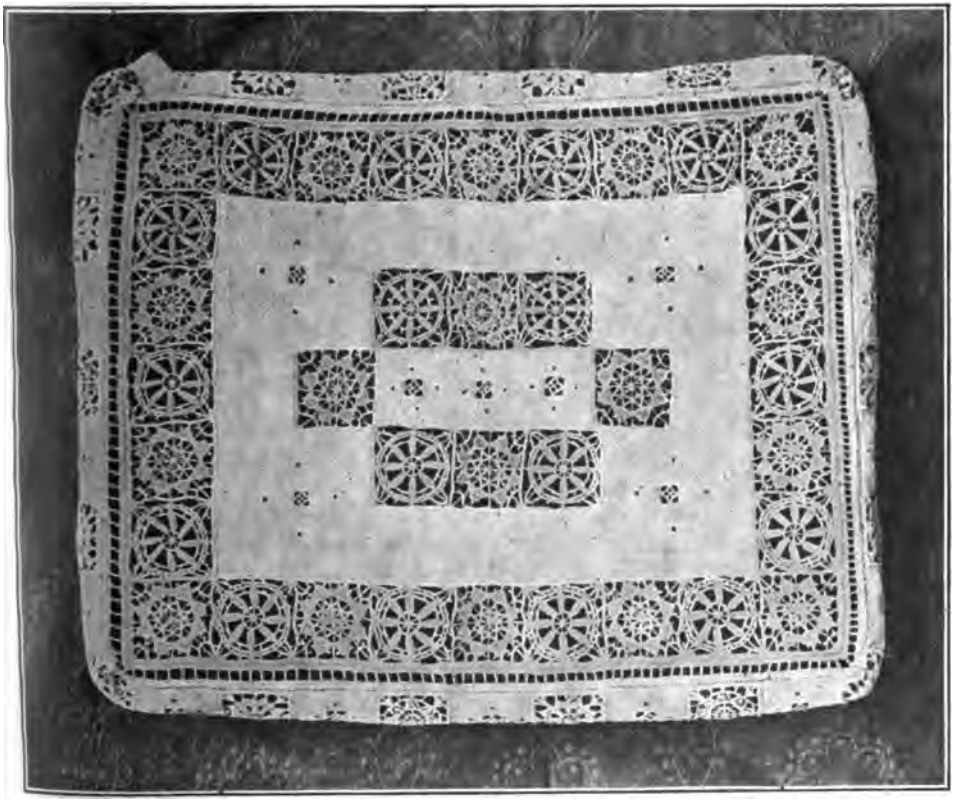
No. 8* is a specimen of island lace, which is also made by the girls of the school.

Last year the sales of the schools amounted to something over £4,000, taken largely in London and Paris. Among those who have given orders are several distinguished Americans, the queens of England and Norway, and the Grand Duchess Vladimir.



No. 4.—Rare old Venetian design.

Further information can be obtained of Louisa F. Pesel, manager of the Hellenic schools of needlework, Imperial Hotel, Athens.

Photographs of the numbers marked with an asterisk (*) together with those herein published, will be loaned to interested parties in the order upon application to the Bureau of Manufactures.

TELEPHONE OPPORTUNITY.

HOPE AMERICANS WILL COME FOR GOOD SERVICE.

Consul Horton also advises that there is a growing discontent in Greece over existing telephone conditions. He writes:

The appliances in use are inadequate and the service unsatisfactory. For this reason the telephones are but poorly patronized, and I am

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informed on good authority that they are an unprofitable investment to the Government, which controls them. It is probable that the Government would grant a concession to some reliable private company that would install up-to-date effective telephones. I am confident that this bright, progressive people is ready for such a telephone service, and would support it with their patronage. The value of the present plant is about $125,000. The French Adder system is in use, with German keyboards. There are at present only about 600 telephones in operation at Athens, Piræus, Phaleron, Kephissia, Decelia, and one long-distance wire connecting Athens and Patras.

The present charges are 100 drachmas (drachma=19.3 cents) a year for a local phone, 250 drachmas where connection is made between cities, and 1 drachma for five minutes' talk between Patras and Athens. Salaries paid to operators range from 120 to 400 drachmas per month. Here possibly may be a profitable opening for American capital, as there seems to be a very general desire on the part of the people, which I have heard frequently expressed, that "the Americans would come and take hold of the telephones." For the granting of this and all similar concessions a vote of parliament is needed, sometimes easily obtained, and in other cases only after many and elusive promises and long and exasperating delays.

IMPORTS AT ATHENS.

UNITED STATES AS YET SUPPLIES ONLY RAW MATERIALS.

Mr. John B. Jackson, minister at Athens, transmits a copy of a Greek Government report on the importations at the Piraeus (port of Athens) for the year 1905, from which Mr. Jackson deduces the following:

The value of the goods passing through the Piraeus custom-house in 1905 was 93,574,498 drachmas (drachma, 19.3 cents), or nearly 10,000,000 drachmas more than the preceding year. The American share has diminished, however, its value being 516,486 drachmas, or 117,523 drachmas less than in 1904. The figures are not at all exact in regard to the actual importation of American goods, as in the absence of any direct lines of communication such goods are very apt to lose their national identity before their arrival in Greece.

As has been the case in former years, imports are classified in accordance with the tariff of 1892, there being 20 categories, with 654 classes, some of which are still further divided. American goods are mentioned in 57 (also among the "Articles divers") of these classes and subclasses, but generally in very small quantities. Only in classes 7a (fats, etc.) and 114 (calfskins, etc.) do they occupy the first position, although in class 150a (cotton) they are second, being three times as much as any other country except Turkey, which exports to Greece almost twice as much as does the United States.

In classes 13 and 81a (codfish and cod-liver oil), 130a and 133 (objects in wood), 249, 252a and b (agricultural tools, machinery, pumps, etc.), 288 (watches), and 338a and b (firearms and revolvers) the American share is represented as being very small, and in all these classes I think it might readily be increased by intelligent effort on the part of our exporters. In the trade with the Piræus, Russia heads the list, being

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closely followed by Great Britain, these two countries furnishing about as much as the next four (Germany, Turkey, Austria-Hungary, and France) mentioned in the list, in which the United States is thirteenth among 26.

CODFISH MARKET.

INCREASED IMPORTATION—KIND OF FISH WANTED.

The British consul at Patras states that the reduction in import duty and the decline in the rate of exchange have brought about the immediate increase in the importation of Labrador and other codfish into Greece.

The kind of cod wanted is 1½ to 2½ pounds per fish, well salted, medium dried, and white in color. Slack-salted fish, dark and yellow colored, and in damp condition, are hard to sell, bringing only $1.45 to $2.33 per hundredweight c. i. f., whereas prime fish sell at $4.62 to $5.10. There is every prospect of a gradual increase in the Greek consumption of codfish, which is a prime favorite among all classes.

There has been no reduction in the import duty on salmon, but the decline in the exchange will, in the consul's opinion, bring about an increased consumption. Canned salmon is not in much demand, owing to its high price, but pickled Labrador fish in tierces of 300 pounds is consumed throughout the year and fetches an average price of $24.35 to $29.20 per tierce c. i. f. The fish preferred is prime No. 1, large size and bright pink color. Anything small, off in color, or tainted in any way has to be sold at very low rates. The Greek market requires the best descriptions of salted, pickled, and smoked fish, and will always pay the price for a thoroughly prime article.

TURKEY.

IMPORT REQUIREMENTS.

THE NEW LAW OF ANALYSIS FOR GOODS SHIPPED THITHER.

Consul-General C. M. Dickinson forwards from Constantinople a translation by Mr. Smith-Lyte of the new Turkish law on Analysis at the Custom Houses, the proper enforcement of which shippers claim they have not yet secured. The articles exported from America and affected particularly by this law are medical specialties, butter, oils and grease, hams, and other pork products. The main points of the regulations are covered in the following summary:

A customs laboratory is provided at Constantinople with a chief chemist, three assistant chemists, and one bacteriologist. Three chemists and a branch laboratory are provided by the law at Galata custom-house, also a chemist at each of the following ports: Smyrna, Salonica, Trebizond, Scutari (Albania), Beirut, Alexandretta, Bassorah, and western Tripoli (Africa). The municipal doctors will make the chemical examinations at other ports. For the first examination and

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analysis of import goods no fees are to be charged. Three samples are to be taken and sealed in the presence of the owner, one of which he receives. The analysis must be made within three days. If the articles prove to be adulterated, spoiled (French translation "deteriorated), or injurious to health, the analytical report shall be furnished the owner of the merchandise. The Foreign Commercial Union of Constantinople press for the elimination of the word "spoiled" or "deteriorated," because, for example, fresh butter may deteriorate without being injurious to health.

RETRIAL TESTS—PROHIBITED GOODS—DRUG REQUIREMENTS.

A reanalysis may be secured within thirty days upon payment of a fee of 100 piasters ($4.40), in which a chemist delegated by the owner of the goods becomes the third examining chemist. Then the finding of any two of the chemists becomes final. If the goods are thus proved healthful, the analysis fee is to be returned. During the formalities no customs storage dues are to be charged on the merchandise. Goods refused entry must be reshipped by the owner, and the second copy of the bill of lading remitted to the customs office as proof. In accordance with the results of the analysis executed in Constantinople a summary declaring the names and trade-marks of the manufactures, the entry of which will be permitted without analysis, is to be issued each month.

The importation is prohibited of all chemicals and drugs used in making explosives, such as chlorates and nitrates of potash and of soda, nitroglycerin and gun cotton, also harmful drug specialties, such as cocaine, sulphite compositions, Doctor Koch's serum, fish herb (cocculus indicus), specialties from a preparation of hemp, etc. Intoxicating beverages containing salicylic acid or other harmful ingredients will not be admitted. The importation of medical remedies the composition of which is unknown or the purity of which is below the requirements of the Imperial Pharmacopœia is refused. However, medicines will be admitted of unknown composition if they have been adopted by an official academy or by other institutions and special official councils if a certificate and sample, together with a formula giving only the names of the substance contained, without specifying quantities, is furnished the customs authorities and the chemists find the remedy to contain no prohibited matters. The certificate to be presented, however, must be legalized by an Ottoman consul. Regular quality of pharmaceutical preparations with well-known trade-marks will thereafter be promptly admitted without analysis.

OILS, GREASE, AND PORK PRODUCTS.

Oils (and butters) rancid or unfit for food will not be admitted. Cotton oil imported for use in industry will be allowed entry after coloration. Grease and various vegetable oils to be used in industry, on condition that they are unadulterated and are in conformity with their descriptive names, will be permitted entry without coloration. Those which in their actual state are not permitted entry, if the owner desires, after coloration in accordance with science their entry will be permitted.

For pork—sausages, bacons, and hams—coming from a country where a contagious cattle disease exists, a sanitary examination alone

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will not be sufficient, but the production also of a certificate delivered by an official institution in the country of origin will be demanded, certifying that these meats are free from disease.

At the examination, from the point of view of coloration, of goods subject to sanitary examination, the entrance is forbidden of those colored by compositions of poisonous mineral substances, such as lead, chrome, mercury, copper, antimony, and arsenic.

COMMERCIAL REFORMS.

FOREIGN INTERESTS AT CONSTANTINOPLE UNITED FOR IMPROVEMENTS.

Vice-Consul-General William Smith-Lyte reports from Constantinople on the excellent progress made by the Permanent Union of Delegates of Foreign Commerce for the betterment of exporting interests supplying Turkish markets. The letter reads:

This union of foreign commercial concerns in Constantinople was formed one year ago and has on its board the vice-consul-general and Mr. Moelhausen, an American citizen, who represents American commercial interests. At a recent meeting President Giraud narrated the subjects in which efforts for reforms had been sought, and said that while their united activity had not succeeded in obtaining all desired reforms, yet some successes were attained. One of these was the law on analysis in customs, which improves the entry of goods. The new stamp law is very different from its original form, almost all the improvements being due to the intervention of the union. Finally the bonded customs warehouses, so often demanded by foreign commerce, were put into practice in July last and are now in full operation.

MORE TURKISH REFORMS DESIRED.

The concluding feature of the meeting in question was the study of the proposed augmentation by 3 per cent of the customs duties on foreign imports. In view of the apparent disposition of the treaty powers to favorably consider this proposal, the delegates will demand the removal of certain features which tend to hinder the progress of commerce in the Turkish Empire, which they outlined as follows: (1) Facility in customs operations; (2) application in its integrity and a liberal interpretation of the new law on analysis; (3) suppression of Hedjas stamp; (4) free access on board; (5) free importation of foreign securities, with the exception of lottery bonds; (6) suppression of the difficulties in connection with the free travel of merchants from the interior who desire to come to Constantinople to make their purchases.

The expenses of this commercial body are borne by subscriptions of $40 each from half a dozen foreign chambers of commerce. The United States is not represented in this expense, and it is suggested that Americans lend a hand.

FLOUR IMPORTS.

AMERICAN MILLERS SHOULD TRY AGAIN FOR TRADE.

Vice-Consul-General Smith-Lyte furthermore advises that a few years ago an attempt was made to introduce American flour into the

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Turkish market, which was not a complete success for reasons which can be overcome. These were:

Faulty stowing on a journey that lasted at times over two months, causing sweating and solidification, and, secondly, unfortunate choice of agents. Suffice it to say that the flour which did reach the market in good condition caused so much stir among the countries who looked upon this market as their own, that specialists were sent from Austria-Hungary and Russia to instruct the local bakers how to improve their bread with their respective flours. The new law on analysis in customs has considerably reduced the severity of the test in force at the time. Article XX of the law now reads:

During the examination and analysis of flours arriving at the custom-houses, the entry of those which are adulterated with plaster, sulphate of baryta, chalk, talc, crude magnesia, and alum, and which do not contain a minimum of 6 per cent of gluten, will not be permitted (to enter) and they will be returned.

It is the belief of this consulate that American flour can be profitably imported into this market, especially in view of the increased facilities for speedy transit between the Levant and the United States, and therefore the attention of American millers is invited to the trade, and the consulate will be pleased to correspond with and obtain for them samples of the various grades of flour imported into this market.

RUSSIAN FLOUR LEADS.

A knowledge of the Turkish requirements in quantity and quality can be gained from the following translation from a report on the subject by the French chamber of commerce at Constantinople:

The latest statistics published by the Ottoman customs are for the year 1316 (14th March, 1900, to 13th March, 1901). They give as imports for the whole of Turkey 225,499,890 pounds of flour and 749,995 pounds of bran. The exports from Turkey are stated as 969,382 pounds of flour and 24,715,077 pounds of bran. From other statistics the importation of foreign flours into Turkey in 1904 from France was 31,953,830 pounds; from Bulgaria, 41,153,048 pounds; Roumania, 14,535,243 pounds; Servia, 157,181 pounds; Italy, 3,728,801 pounds, or a total of 91,528,103 pounds. Russia alone, during 1904, must have shipped to the Ottoman Empire as much flour as all the other countries combined, but no statistics are available of its foreign commerce. During the agricultural year 1904–5, from August 14, 1904, to August 13, 1905, there were imported into Constantinople 358,848 sacks of flour from Russia and 246,342 sacks from Marseille, Roumania, Bulgaria, Genoa, native, etc., or say 100,025,476 pounds.

The consumption of flour in Constantinople and its suburbs is estimated at 1,300,000 sacks of 165.45 pounds each, say, 215,085,000 pounds. In these figures the flour necessary for the garrison of the capital are not included; this is supplied by the flour mills of the ministry of war. Certain purchases of army flour are sometimes made in the open market when the outturn of these mills is insufficient for the requirements of the Imperial troops. The flour needs of the city is furnished in part by local milling, from mills in the interior, and 40 to 75 per cent is imported, according to the Turkish harvest results. Thus a poor wheat yield necessitates the foreign purchase of about 975,000 sacks of flour, which, at 75 piastres gold ($3.30), amounts to $3,217,500.

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When there is a good harvest the imports are reduced to as low as 520,000 sacks.

Russia is the principal source of supply. In fact her flour being very rich in gluten is indispensable to our bakers. The importation of Russian flour into Constantinople now varies between 350,000 and 400,000 sacks per annum.

Italy is a new arrival on the market for flour. She appeared about four months ago and has sold 2,000 to 2,500 sacks per week. The flour is of very inferior quality and is sent to the interior.

There are in Constantinople 19 mills, of which 10 are perfectly equipped and capable of producing 2,188,000 sacks of flour per year; nevertheless, 7 mills only were working and their outturn for 1904 did not exceed 700,000 sacks. A difficulty they encounter is that the freight on grain to Constantinople from the wheat-growing districts is as heavy, perhaps, as that on flour from further distant countries where flour is an outward freight.

BULGARIA.

RUBBER GOODS, RAILWAY SUPPLIES, CARRIAGES, AND BOATS WANTED.

Mr. John B. Jackson, minister to Greece and diplomatic agent to Bulgaria, reports that, according to statistics recently published in the Courrier de Sophia, Bulgarian foreign commerce in the last few years was as follows:

	1903.	1904.	1905.
Exportation	$21,614,700	$31,523,700	$29,592,000
Importation	16,360,500	25,937,900	24,449,900
Total	37,975,200	57,461,600	54,041,900

These figures show that the value of the total commerce in 1905 was somewhat less than in 1904, but considerably more than in 1903, and that the balance in favor of Bulgaria was practically the same (exceeding $5,000,000) during the three years in question. Bulgarian exports to the United States were valued at $179,000 more in 1905 than in 1904, and the imports from America showed an increase in value of $168,000 during the same period. Unfortunately the statistics published do not show the totals or give details as to the nature of the goods exported and imported, and, as already stated, these statistics are not exact in regard to the value of goods originally coming from or ultimately delivered in the United States, owing to the lack of direct communication with this part of the world and to the fact that practically no American vessels are engaged in the carrying trade. There has been considerable diminution in the importation of arms, cartridges, powder, and other instruments of warfare, as well as of oils, drugs, conserves, and live animals, especially horses. On the contrary, the importation of colonial goods (especially sugar), rubber goods, railway wagons, carriages, and boats has increased.

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RUSSIA.

FLUCTUATION OF TRADE.

FOREIGN COMMERCE SHOWS FAIR INCREASE—RELATIVE POSITION OF THE COUNTRIES PARTICIPATING.

Mr. Samuel Smith, consul at Moscow, reports on the trade of Russia for 1905, furnishing details of exports and imports and showing the share of each of the various countries participating. The report follows:

Russia's foreign trade in 1905 attained the total of 1,571,700,000 rubles ($785,850,000), the exports amounting to 1,018,200,000 rubles ($509,100,000) and the imports to 553,500,000 rubles ($276,750,000). The fluctuation of the foreign trade for the last two years is illustrated by the following figures:

	Exports.	Imports.	Total.
1904	$477,900,000	$290,900,000	$768,800,000
1905	509,100,000	276,750,000	785,850,000

The exports during 1905 increased to 6.5 per cent, as compared with 1904, and are divided into the following groups:

Articles.	1904.	1905.
Provisions	$307,700,000	$342,600,000
Raw materials	150,550,000	146,200,000
Animals	8,050,000	7,900,000
Manufactures	11,600,000	12,400,000
Total	477,900,000	509,100,000

More than half of the exports consisted of cereals, of which 11,595,000 tons, to the value of $283,400,000, were exported, against 10,793,335 tons, to the value of $247,650,000, in 1904. The exports of wheat, wheat flour, buckwheat, and peas increased, whereas a decrease is shown in the exports of rye, rye flour, barley, Indian corn, phasel and beans.

IMPORTS.

The imports during 1905 amounted to $276,750,000, against $290,900,000, in 1904, as shown in the following table:

Articles.	1904.	1905.
Provisions	$46,400,000	$46,050,000
Raw materials	165,400,000	152,650,000
Animals	800,000	500,000
Manufactures	78,300,000	77,550,000
Total	290,900,000	276,750,000

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A large increase is shown in the imports of the following provisions: Tea, $2,640,000, against $900,000 in 1904; rye, $812,500,000, against $661,500 in 1904; barley, $273,000, against $147,500 in 1904.

The import of coal was 3,700,000 tons, against 3,066,665 tons in 1904. All other provisions, as well as raw materials, animals, and manufactures show a decrease.

The following tables show the exports and imports by countries:

EXPORTS AND IMPORTS, BY COUNTRIES.

Exports.

Countries.	1904.	1905.
Germany	$117,370,500	$127,470,000
Great Britain	115,212,000	124,619,500
Holland	49,628,500	63,396,000
France	30,891,000	32,216,000
Italy	26,489,000	31,318,000
Austria-Hungary	20,299,500	23,097,000
Belgium	21,996,000	22,293,000
Denmark	15,189,500	11,677,500
Spain	4,243,000	9,758,000
Turkey	12,399,000	7,764,000
Sweden	5,611,000	5,715,000
Roumania	4,808,500	5,194,500
Norway	4,165,500	3,935,500
United States	2,181,000	1,777,000
Finland	23,161,500	19,431,000
Other countries	24,254,500	19,431,000
Total	477,900,000	509,100,000

Imports.

Countries.	1904.	1905.
Germany	$112,357,000	$116,468,500
Great Britain	50,916,000	47,735,500
United States	31,110,500	19,984,500
France	13,106,500	12,980,000
China	9,520,500	9,722,500
Austria-Hungary	10,676,500	9,321,000
Holland	5,693,500	6,146,000
Italy	4,844,000	4,732,500
East India	4,284,000	4,522,000
Egypt	8,033,000	4,446,000
Norway	3,814,000	3,798,000
Belgium	3,323,500	3,628,500
Turkey	3,032,500	2,844,000
Sweden	2,478,000	2,386,500
Finland	12,258,000	13,401,500
Other countries	15,422,500	14,683,000
Total	290,900,000	276,750,000

The above tables show that the exports in 1905, as compared with 1904, decreased to Turkey, Denmark, Norway, and Finland, but increased to all other countries. The principal markets for Russian products are Germany, Great Britain, and Holland.

The imports show an increase with Germany, China, Holland, Belgium, East India, and Finland, and a decrease with all other countries, especially with Great Britain, the United States, and Egypt. The decrease in the imports from the United States is shown in the imports of raw cotton and agricultural and other machinery, and is due to the war and internal troubles in Russia.

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EXPORTS FROM MOSCOW.

The exports from the consular district of Moscow to the United States for the six months ending December 31, 1905, aggregated $3,080,000. The principal items and the value of each were: Calfskins, $1,023,610; sheepskins, $287,940; goatskins, $147,258; Persian lambskins, $87,292; colt skins, $65,046; squirrel skins, $38,432; lambskins, $29,158, all other skins, $8,294; wool of all kinds, $308,761; camel's hair, $527,037; cow hair, $60,436; horsehair, $56,728; furs, $131,733; horsehides, $101,156; cowhides, $41,439; old rubber shoes, $78,092; horsetails, $33,057; horse necks, $45,092.

BALTIC COMMERCE.

PORT OF RIGA A GOOD ONE FOR AMERICAN PRODUCTS.

Consul N. P. A. Bornholdt makes an excellent detailed report on the foreign commerce of the Russian port of Riga during the year 1905, and the sustained share of the United States in that trade, notwithstanding the disturbed conditions there. The consul writes:

Notwithstanding the severe conditions of railway obstructions, in consequence of the military operations, and periodically returning strikes, both in the factories and among the harbor laborers, from which the Russian trade had to suffer, the export values of goods going to the United States registered in this consulate during the year 1905 show a considerable increase as compared with the foregoing year, viz, $2,405,543 against $2,069,100. This is so much more striking as the two principal articles, hides, skins, and wool, are of Siberian origin and were difficult to ship over the congested Siberian railway.

LARGE EXPORTS TO AMERICA.

Hides and skins, mostly of horses, colts, neat cattle, sheep, lambs, and goats shipped to United States figure in the consulate's registers with $1,833,000, or an increased export of $175,127 as compared with 1904, and of $660,653 as compared with 1903. As to wool (of Siberian lambs), the values declared on shipments to America during the year amounted to $185,767, against $112,570 during 1904. Whereas flax and flax tow showed a considerable decrease, viz, $110,928, against $173,900 in 1904, the export of hemp and hemp tow rose from $1,166 in 1904 to $29,473.

An unexpected increase occurred in rubber waste, which export seemed to be doomed since the Russian rubber factories had, about two years ago, penetrated the secret of how to prepare the waste for renewed use. During 1905 such waste figures were $104,350, against $85,920 in 1904. The export of wood pulp went down from $46,050, in 1904, to $18,880. Among other exports to America, such as Hebrew books, horse and cattle hair, bristles, liquor, turpentine, etc., no fluctuations occurred and no new export lines sprung up.

SUSTAINED IMPORTS FROM UNITED STATES.

Although the import trade is confused on account of the principle followed by the Riga customs authorities of registering the merchan-

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dise under the respective ports in which it may have been transshipped, it is satisfactory to be able to state by way of exception that in one article, viz, rosin, the American product has won a decided victory over its European competitors in this market. Whereas, in 1904, the total quantity imported via Riga amounted to only 4,900 tons, of which only about 2,700 tons were of American origin. The year 1905 shows an import of about 7,360 tons, out of which about 6,070 came from the United States.

Cotton imports dropped to 20,000 tons against 26,410, a natural consequence of the precarious conditions from which the textile, like most other industries, has had to suffer in Russia.

In machines and machinery, in which the American trade prominently figures, a considerable increase is to be noticed for industrial machines, viz, 9,678 tons, against 4,320 the foregoing year. The imports of agricultural machinery fell from 5,077 tons in 1904 to 1,980 in 1905.

GENERAL TRADE OF RIGA.

According to the preliminary official calculation, the total value of merchandise imported into Riga during 1905 amounted to $29,817,600, against $51,546,790 in 1904. The exports, on the other hand, were exceptionally lively and the value registered, viz, $66,377,395, against $61,432,645 for the foregoing year, is the highest ever registered in this port. On the whole, Riga maintains its predominating position as the commercial center among the Russian Baltic ports.

The decline of imports is principally due to reductions in the following classes: Coals and cokes, 401,250 tons against 454,050 in 1904; cotton, about 20,000 tons against 26,410; raw jute, 2,900 tons against 6,085; corkwood, 33,105 tons against 62,340; ore, 11,680 tons against 13,143; complete agricultural machines, 1,980 tons against 5,077; parts of machinery, 4,900 tons against 7,122; unmanufactured iron, 2,083 tons against 2,700; steel, 3,350 tons against 4,458; artificial manure and phosphates, 37,500 tons against 40,000; tea, 2,955 tons against 4,374; herrings, 8,758 tons against 12,900. There were also declines in sulphur, dyewood, different chemicals, etc.

The extraordinary rise of the values exported may be attributed principally to advances in the following commodities: Cereals (of all kinds), 186,270 tons against 162,170 in 1904; flax and flax tow, 98,740 tons against 70,384; hemp and hemp tow, 17,400 tons against 15,000; linseed, 30,000 tons against 16,500; oil cakes, 61,730 tons against 54,000; butter, 19,500 tons against 15,820; eggs, 82,636 tons against 73,372.

The rise in the grain trade was due principally to the large quantities of oats which came for shipment, viz, 57,190 tons against about 20,000 in 1904. A rise is also recorded for rye, viz, 4,644 tons against 2,077. But the wheat exports went down considerably, viz, 119,320 tons against 125,500; and barley was only shipped to an amount of 3,112 tons. It is a fact that Riga's former importance in the grain trade is every year declining.

A compensation may be found in the remunerative butter and egg trade, in both of which Riga's supremacy is indisputable. It now represents about 52 per cent of the total Russian butter exports and 41.5 per cent of the egg exports. The wood exports, of old one of the principal resources of this port, was not so lively during 1905; 46,500,000 cubic feet, consisting principally of deals, boards, sleepers, timber, etc., came for shipment, against 47,900,000 during 1904.

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HIGHER STEAMSHIP RATES IN BALTIC.

Navigation suffered from the strikes, and vessels had to undergo long delays here, especially in the autumn. Both sailors and dock-laborers obtained better pay, but in the course of the first months of the current year wages were again reduced. They are, however, still higher by, say 20 to 50 per cent, than before the strikes.

During the year freights for grain were very low, but wood freights showed an increase of from 10 to 15 per cent. This was especially due to higher rates demanded by a great number of shipowners who, during the year, met twice at Copenhagen forming "the Baltic and White Sea Conference" for the protection of their common interests and agreed not to carry goods at unprofitable rates. For coals the freights rose during the autumn, in consequence of the long delays caused by the dock laborers' strike, from 97 cents to $1.45 and $1.70 a ton from east coast of England to a Baltic port. During the year this port was visited by 1,961 ships, with 1,204,882 net tonnage. No American vessel was among the number.

WHAT MOSCOW BUYS.

GERMANY SUPPLIES THE CHIEF IMPORT NEEDS.

The British consul at Moscow, in a report to his Government, draws attention to the steady and increasing demand for electrical appliances in that part of Russia. He says that the field is largely controlled by German firms, a German syndicate having obtained concessions from the Russian ministry of finance.

There is also a considerable market, he says, for machine tools in Russia. They would seem to be nearly all imported, Germany being the main supplier. Goods supplied for the Russian market should be somewhat stouter in construction than those usually turned out for the British market, as the Russian is usually not so skilled and is somewhat rougher in his methods than his more educated fellow-workman abroad.

The consul also states that there is a steady, if not very large, import of china, glass, etc., but local taste, demands, and customs must be consulted in supplying the market, as the Russian table demands shapes and sizes which are not in vogue elsewhere. There is a large demand in Russia for fancy tiles for paving halls, etc., and for facing stoves, which are in every Russian house. There is also a certain demand for sanitary fittings.

Mr. Grove makes a complaint similar to that of many American consuls to the effect that hundreds of elaborate catalogues sent to him annually—and presumably to local business firms also—in English, with prices stated in English money, giving weights and measures, are hardly likely to compete with German catalogues, which are well understood in Russia, using metric weights and measures, and stating prices delivered at the Moscow railway station. German is a well-known business language in Russia, owing to the tens of thousands of German-speaking clerks employed there, whereas English is not. Marks are easily convertible into roubles, and all business firms understand the metric system.

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MONEY IN SIBERIA.

GOOD CROPS AND WAR EXPENDITURES CAUSE ACTIVE TRADE.

Siberia is now spending the money earned in connection with military traffic during the war in the Far East, and an extraordinary demand has sprung up—so the British consul at St. Petersburg reports—for manufactured goods of all kinds, ready-made clothing, vehicles, guns, and ammunition, implements, etc. British preserved foods find a ready sale at good prices in the most remote districts.

Some time ago a Danish firm applied to the Russian railway department for a reduction of the freight on Siberian mutton for export. On account of the needs of the army during the late war favorable consideration was postponed. Now a rate of 76 cents per 100 pounds from Omsk to Riga has been made. The latest statistics give the number of sheep in west Siberia at 7,690,000, of which 4,500,000 are in the steppe lands, but this is said to be a low estimate. The Kirghizes sell about 206,500 per annum. In 1903 about 300,000 dead sheep were carried by railway from Siberia to the Ural, Moscow, St. Petersburg, and central Russia. Experiments have been made in sending Siberian mutton to Copenhagen and London.

The British consul at Moscow makes a report saying, "When once the Siberian Railway is clear again for traffic, which will be soon, large orders may be expected for agricultural machinery, as the harvests have been excellent and there is plenty of money in Siberia waiting to be invested in machinery and other lines."

The British consul at Odessa reports to his Government that vessels are leaving there for Vladivostok taking large consignments, varying from 150 to 200 tons, of enameled ware for cooking and other purposes. These goods are chiefly of Austrian manufacture, though a small quantity comes from Poland.

GERMANY.

POTASSIUM MINING CRISIS.

UNLIMITED GERMAN SUPPLY—POSSIBLE BREAK OF COMBINATION.

Consul T. J. Albert, of Brunswick, reports that Germany enjoys the distinction of being, so far, the only country in which potassium salts, called kali, have been discovered in large quantities, and can be said to possess a monopoly of these valuable mineral deposits. He writes:

The year 1905 has been the most prosperous in the history of the potassium mining industry. The feeling of security produced by the renewal of the potassium syndicate in 1904 for five years, and the continuous increase in the sales of the old mines and their immense profits, have led to the organization of a great number of new mining companies. Fears are expressed that the competition arising from these new enterprises may threaten the existence of the syndicate, and that the slaughter in the prices of the products of the mines

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which would follow a dissolution should produce a convulsion in the potassium market never before known. Kali is exported to the United States in large shipments, and is used principally for fertilizing purposes in the cultivation of cotton, tobacco, sweet potatoes, oranges, and other fruits and crops.

The amount of kali, or potassium salts, produced by the mines amounted in the year 1879 to 661,700 tons. In 1904 the amount produced had reached 3,939,518 tons. The principal part of this increase consists of so-called manure salts for agricultural purposes. The large export to other countries, and the exhaustion of land surfaces by active cultivation at home, increase the demand for these salts and show that they are becoming a necessity.

GOVERNMENT INVESTMENTS IN POTASSIUM MINES.

Three States are represented in the potassium syndicate, namely, the Kingdom of Prussia and the Duchies of Brunswick and Anhalt. Besides its present holdings in the syndicate the Prussian Bergfiscus, or State treasury for mines, has bought for 30,000,000 marks (mark= 23.8 cents) cash the valuable Hercynia mine at Wernigerode and will secure possession July 1. The object is to strengthen Prussia in the syndicate and to give it a predominating influence in the present critical conjuncture of the industry. It is said that the purchase of other mines is contemplated by the same government.

Brunswick is represented by the Asse mine, which was leased to the syndicate for twenty-five years from 1879 at the annual rental of 200,000 marks, or about $50,000. It is provided in the contract that if the rental falls below that amount for three successive years the lease can be canceled by the State. On the other hand the State is prohibited by the contract from granting mining claims to outside parties during its continuance or exercising the right of opening mines itself during that period. Measures are now pending before the Brunswick legislature in regard to sinking a new shaft in the Asse mine in order to increase its production, and two offers for the purchase of the mine are being considered by that body. Prussia is said to be behind one of these offers.

Brunswick would gladly be released from the onerous conditions of the lease, as it is said that, if the potassium deposits within the Duchy were properly developed the revenues derived from them would possibly be sufficient to pay the expenses of the Government without taxation.

SPECULATION IN MINING SCHEMES.

The year 1905 has been called "founding year" in the potassium mining industry. The fever of organizing new companies during the year reached such a stage, and has not yet ceased, as to threaten the stability of the syndicate and to cause serious apprehensions as to the future prices for the products of the mines. In order to restrain this speculative activity a law was passed by the Prussian legislature limiting the granting of mining claims for coal and kali to two years. On account of this measure speculators transferred their sphere of activity to the State of Hanover, where mining claims are not subject to this law. The result is that scarcely a spot of ground remains open which is not covered by a mining contract for potassium, the far-

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stretching Lüneburg heath especially offering the best territory for new openings. The number of companies organized during the year is said to have reached considerably over 50. The geological formation in which the mining operations are carried on is sand interspersed with strata of water-bearing gravel. This formation makes mining extremely hazardous owing to exposure to caving and flooding.

Under the Prussian law the dimension of a maximum claim for which mining rights may be granted is 2,180,000 quadrate meters, about 200 hectares, or about 500 acres. A potassium mine before it becomes profitable usually costs from five and six million marks, or about $1,250,000 to $1,500,000. Irregularities and stock jobbery have come to light recently in the organization and conduct of several companies, some being only organized to unload worthless shares on the public. The mining market is liable to great fluctuations. When the extension of the syndicate became assured the shares of the most important companies rose more than $1,000 a share, and in case of a dissolution they are liable to fall as much.

NO EXPORT DUTY—FOREIGN INVESTMENTS.

In searching for new sources of revenue the proposition has lately been brought before the tax committee of the Reichstag to levy an export duty on potassium salts. The proposition has been supported by the Landwirtschaft, or agricultural party, as a means of protecting German agriculture from foreign competition, while it has been opposed by the potassium syndicate on the ground that the salts are little used in raising foreign wheat, the chief article of competition, and that the tax would be difficult of collection and highly injurious to an industry engaged in exporting a valuable article of commerce. The committee has recently rejected the proposition and removed a disturbing factor from the industry.

From time to time reports are published in the newspapers of the purchases of large interests in potassium mines by American and English capitalists. There is no doubt that such purchases have been made, but it would be difficult to ascertain their extent. It is generally understood that the majority of the shares of the mine "Einigkeit," one of the less important members of the syndicate, is controlled by American capital. At the beginning of the present year it was stated on good authority that a majority of the shares of the mining property Solling had been acquired by English investors, and that previous to this acquisition large purchases had been made by English capitalists in the mining companies Wallensen, Thuisten, and Duingen. The name of the Virginia Chemical Company has been associated with the investments on America's account.

COMBINATION HOLDS BY SLENDER THREAD.

The greatest lack of harmony prevails at times between the members of the syndicate as to the quota to which each is entitled. Some of the old companies have opened new potassium fields and founded new works. They not only insist upon their ancient rights and privileges, but make excessive demands for the new companies established by them or in which they stand in connection.

On the outside the syndicate is threatened by the large number of

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independent companies, which from time to time as their production increases will demand admission or menace it with their competition. The chief competitor at the present time is the Sollstedt Potassium Works, owned by Hermann Schmidtmann, who has the largest private interests, and insists that the home price for the 12.4 per cent Kali should be reduced from 1.50 to 1.25 marks for the double hundredweight and that a new brand containing 16 per cent raw salt should be introduced at the price of 1.61 marks per 200 weight, with the object to restrain the founding of new companies. Negotiations are still pending without prospect of a favorable understanding, and in the meantime Mr. Schmidtmann is said to have made American connections. Even if an understanding should be reached with Sollstedt the conflict can break out anew with other works outside of the syndicate, and its dissolution is considered by many as a mathematical certainty.

The syndicate calculates that it will be on the average necessary to admit five new works each year, which presupposes an increase in the production of salts amounting to 12½ per cent annually. To create a market for this annual increase the sum of 2,000,000 marks, about $500,000, has been appropriated for propaganda and the prices for the products shipped to Mediterranean countries, the American islands, Mexico, as well as East Asia and Japan, reduced.

FUTURE OF THE INDUSTRY.

It is conceded that the prosperity of the potassium industry depends upon the stability of the syndicate. Should it be dissolved a crash will follow in the prices of the mining products, and the result will be the bankruptcy of the weaker works and their disappearance or absorption by the financially stronger companies.

At the present rate of consumption it has been calculated that the products of the potassium mines will last 191 thousand years, and are practically inexhaustible. In them Germany unquestionably possesses an immense treasure—perhaps more valuable than the nitrate deposits of Chile.

RAG INDUSTRY.

CLOSE UTILIZATION OF ALL TEXTILE WASTE PRODUCTS.

Consular-Clerk Leute, at Mannheim, makes a report on the German rag industry, which is an interesting subject at the present time on account of the German paper manufacturers' complaints about the increase in prices, owing to the heavy and unrestricted export of rags, mainly to the United States. Mr. Leute writes:

Among the more important industries in the Mannheim consular district is that of rags and cuttings. Though the number of firms in this branch exporting to the United States is small, their aggregate exportation is large. The Mannheim consular district is especially a chemical, color, and leather producing one. These articles together form about two-thirds of the entire exports to the United States. But of the many other articles only one is of more importance in point of export value than that of rags and cuttings. This export amounts to about $350,000 annually to the United States alone, while large quantities are shipped to other countries, England being, perhaps, the

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largest buyer among them. During 1905, 18,345 tons of rags left Mannheim and 6,616 tons arrived, which shows the importance of the rag industry.

DESCRIPTION OF FACTORIES.

The industry is carried on principally by firms at Mannheim and Karlsruhe. Branch factories are situated in different parts of the state. As the labor employed is drawn mainly from the peasant class, it is obvious that the factory must be within easy reach of a number of small country towns. The two largest factories are well equipped, that at Karlsruhe being especially modern. It is a double-winged, four-story building fitted with elevators, electric light, electric presses, shredding machines, and containing storerooms, the offices, dining, locker, and bath rooms for the employees, disinfecting room, etc. Apart from these buildings is another where the woolen rags are chemically treated to decompose all vegetable matter. The principal factory at Mannheim is smaller but is also well equipped, having electric light, steam heating, etc. Both factories have railway sidings in or alongside their buildings to allow direct loading and unloading from the railway cars and also have generating plants for their supply of electricity.

EMPLOYEES AND WAGES—FOREIGN IMPORTATION.

The number of persons employed in this branch in this district is perhaps 1,500. The sorters, who are recruited mostly from the peasant class, are exclusively women and girls. Local law requires them to be at least 15 years of age. Their work consists mainly of sorting the rags, cuttings, strings, etc., according to color and kind, and in removing every particle of foreign matter, such as leather, rubber, cardboard, etc. The learners earn about 35 cents a day. After becoming more skilled they are put on piecework and earn 50 to 90 cents a day. The boys are employed in feeding the presses and their wages range from 35 to 50 cents. The men do the hauling of the bales and earn about 75 cents to $1 a day. Neither the labor of men nor boys is skilled, the foremen alone being versed, as a rule, as to quality and kind of the rags.

As sorting is not overly lucrative or remunerative unless the sorter works very diligently, some difficulty has been experienced of late in getting enough help among the German girls and women. They usually prefer working in less dusty factories and farther in town. As a result, outside help has had to be secured. This has come from Galicia. Upward of 100 Galician girls and women (also a few boys) have been imported by one firm in this district and with good results, it is claimed. These people are secured through an employment agency in Berlin. The importing firm must cover their traveling expenses, board, and lodging, which are then deducted from the wages in small installments. Only a few of these immigrants understand German and many can not even read or write their mother tongue. Local law now requires that such immigrants must each have his or her own bed, and some difficulty has been met with in supplying adequate lodgings.

DISPOSITION OF THE RAGS.

The uses to which the rags are put after going through the sorting, being baled, and shipped from the factory, are varied. Old rags from

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the rag picker are used for making the cheaper grades of packing paper, etc. The new cotton cuttings come from corset, shoe, and doll factories, tailor shops, dressmaking establishments, etc., and are, in part, shredded and spun into cotton sewing thread, or, to some extent, woven into artificial cotton cloth, and are used, in part, for making better grades of paper. They are sorted according to color, rendering a special dyeing process in some cases unnecessary. The linen cuttings are used for the finer grades of writing paper, etc.

Woolen rags are treated with acids to decompose all vegetable matter, are then shredded, spun, and woven into cloth. This cloth is used for the cheaper grades of dress goods and suitings. Rope, string, baggings, etc., are used principally for paper making, the different kinds, as hemp, manila, flax, etc., being separated. A fact which seems surprising at first is to be told, on confronting a bale of great, thick ropes, that they are used for making cigarette paper.

The question of utilizing the waste products has not yet been fully solved. The rubber has almost no value commercially. The small pieces of leather found among the cuttings from shoe factories are used, to some extent, in making leather for upholstering purposes. Until recently the dust and fuzz which falls through the sorters' tables and that drawn out of the sorting rooms through exhaust pipes had to be thrown away as worthless. A process has, however, been recently invented whereby it can be made into roofing paper, and it is now carefully collected. The utilization of these waste products would seem to be a fairly rich field for invention.

UNIFORM WEIGHTS.

MARKING PACKAGES FOR RETAIL TRADE IN GERMANY.

Consul Carl Bailey Hurst, of Plauen, reports that it is important that American firms exporting goods to Germany put up in packages for retail, as well as any class of merchandise forwarded in bulk to be repacked in Germany in boxes, cans, or other coverings shipped separately, should be advised that regulations are being formulated by the Prussian ministry of commerce requiring the statement on the wrappers of the net weight of the contents. Mr. Hurst continues:

While the new order will not militate against the United States in particular, it closely concerns a considerable line of articles in which of late a good trade has gotten fairly under way, such as breakfast foods, biscuits, jellies, salad oils, and meat extracts. Tea and other goods of foreign origin, offered for sale for the greater part in small packages, often have the weight stated in pounds, not specifying whether Russian, English, or German pounds. As the German public is not generally aware that the Russian pound contains 409.512 grams (14.445 English ounces) and the English pound 453.593 grams (16 ounces), people are often led to buy through the apparent cheapness, to the disparagement of a package marked in German pounds, which contains 500 grams (17.637 English ounces). In addition, such weights as are given on the package generally include the coverings, frequently heavy materials, so that a decided difference exists between gross and net weight.

There has already been some legislation against unfair trade competition, covering retail sales of yarn and of candles, where weight,

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number, and length are required, as the goods may demand. The intention is to protect the purchaser by this new regulation and the movement has the support of a great number of merchants. It is proposed to have the net weights given in grams or kilograms on the outside of the package. This will also obviate any ambiguity as to a system of weights not in use in Germany, and it is mentioned that a mere statement as to the relation between foreign and local weights, without direct calculation into the metric system, will not be sufficient. It is not planned to hinder legitimate trade in foreign products, inasmuch as the middlemen or retail dealers may in future comply with the law by placing around the package a band giving the weight of the contents in grams. Whether it will be necessary to give the gross weight, in addition to the net weight, has not yet been decided. One chamber of commerce has made a strong plea for the speedy adoption of a regulation that both packing and net weights should be stated.

In the event that a case may arise where the contents have partially evaporated and the article bought does not conform exactly to the figures given on the package, it will be left to the decision of the court, if the matter should be carried so far, to decide according to the merits of the case. Also, for many goods manufactured and packed in Germany, it is declared to be desirable that net weights should be given, as for conserves, kitchen soap, and chocolate. It has come to light that in the struggle of competition both dealers and manufacturers have put up goods that do not represent the supposed weights, and it is stated here to be in the interest not only of the consumers, but also of the dealers, to see that there is some uniformity and clearness in goods sold in ready packages.

TAR SMUDGE.

PROTECTION FOR FRUIT AGAINST FROST.

Consul-General A. M. Thackara, of Berlin, furnishes a report on "räuchermasse," a material which, it is claimed, will emit a dense smoke that will protect fruit trees against damage from late frost. The consul-general writes:

To protect budding vines and blossoming fruit trees from damage which may be caused by late frosts, the Germans have, in some instances, resorted to smudges. The smoke from the latter, enveloping the buds and blossoms, acts as a protecting mantle and prevents the vines and trees from being frost-bitten. Different materials are used for the purpose, old straw or hay, tar, leaves, etc., but success in each case depends upon the generation of sufficient smoke to cover the vines and trees to be protected. Doctor Noerdlinger, at his chemical works at Florsheim on the Main, manufactures a patented smudge, called "räuchermasse," the formula for which is a trade secret, which he claims has many advantages over the other materials used for smoking vines and trees, especially tar. The patented article may be taken from the barrels with shovels and transferred to smaller receptacles, while tar, being thick and viscous, is difficult and disagreeable to handle. The combustion of the "räuchermasse" is more complete than that of tar, requires but little attention when burning, fresh quantities may be added to the fire without danger, and it leaves but little ash, while the ash percentage of tar is as high, in some cases,

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as 30 per cent. The "räuchermasse" may be burned in buckets, boxes, old barrels, etc., or in small holes made in the ground. It can be safely ignited with a match, or a handful of straw, shavings, paper, etc., dipped in petroleum, and can be stored indefinitely without deterioration.

RESULTS OF EXPERIMENTS.

The official report of the Imperial experimental station at Geisenheim, dated June 22, 1903, upon the relative merits of the Noerdlinger material and tar, made to the minister of agriculture, was as follows: "During the night of the 19th of May, 1903, when a frost occurred, experiments were made with the Noerdlinger smudge material and tar in the vineyards connected with the station. It was found that the first-named product possesses important advantages over tar. It can be removed from the barrels by shovels and put in smaller vessels without soiling the clothes of the workmen, which is not the case with tar. It gives a greater and more dense volume of smoke, and in burning, as it does not produce a large flame or great heat, can consequently be placed between the vine poles without injury to the vines. The combustion of the 'Räuchermasse' is more perfect than that of tar and requires less attention. The fact that the Noerdlinger material costs somewhat more than the tar—10 marks ($2.38), against 8 marks ($1.90)—is more than compensated for by the stronger and thicker smoke which it produces and by the fact that it requires less time in the preparation of the material and in smoking the vines. The patented boxes made by Doctor Noerdlinger are practical but too expensive, as the smudge material burns just as well in tin boxes, which cost only half as much. It is consequently not believed that the Noerdlinger box will be extensively employed."

The prices quoted for the "räuchermasse" barrels included f. o. b. station at Florsheim are as follows: 12 marks ($2.86) per 100 kilograms (220.46 pounds) for single barrels containing from 200 to 300 kilograms; 11 marks ($2.62) per 100 kilograms in quantities not less than 5 barrels, and 10 marks ($2.38) per 100 kilograms in lots of 25 barrels. For larger quantities special rates will be made. When barrels are sent freight prepaid, to be filled, a reduction of 1 mark (23.8 cents) per 100 kilograms will be made.

In the opinion of an owner of a large seed farm near Berlin, who has experimented with various kinds of smudges, for the private individual who seeks to protect his small garden against late frosts smoking processes may be used with advantage, but in large orchards or vineyards the protection against frost by this means is not practicable, because, in the first place, such means are costly, especially when tar or the Noerdlinger material is used, and then it is almost impossible to produce a uniform smoke cloud over a large surface sufficient to keep the cold away, particularly when wind prevails.

EMPIRE'S COLONIES.

SCHOOLS FOR NATIVES—GERMAN WOMEN AS SETTLERS.

Consul E. L. Harris makes the following report from Chemnitz on the methods Germany is using to secure substantial results in her oversea colonies:

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Germany has established Government schools in the following places in her East African colony: Tanga, Pangani, Bagamojo, Daressalam, Kilwa, and Linda. These schools are very unique, and well adapted to produce the best results. They are intended primarily for the instruction and education of the natives, and for this purpose many natives are employed as teachers. These schools are divided into two parts, namely, the school proper, for teaching German, writing, arithmetic, geography, singing, and gymnastics, and the workshop, where the practical trades are taught, which include cabinetmaking, locksmithing, printing, bookbinding, and tailoring. These six schools have many affiliated branch schools in the neighboring villages, so that now a network of minor schools extend along the whole coast of German East Africa. There are in these schools 12 European teachers, mostly German, and 88 colored teachers. There are 3,726 pupils in attendance, 1,527 of whom are taking advantage of the opportunity to learn various trades. This latter arrangement has been the means of creating a most favorable impression upon the natives.

In the German Cameroon colony the Government school at Duala was attended in 1905 by 315 native pupils. Great stress in this school is laid upon teaching German to the natives. Other subjects are being slowly introduced, as the native children are gradually taught to throw off their lazy habits. There is also a school at Victoria attended by 210 pupils.

In German Togoland the school at Lome is taught by 2 white European and 2 colored teachers. About 15 pupils complete the course every year. The Government school at Sebevi is attended by 92 native pupils.

In Samoa the pupils of the German Government schools number 63, while 200 Samoan children attend other schools.

GERMAN WOMEN FOR THE COLONIES.

In a recent Reichstag debate an official defended the decision of the Government which advocated the policy of henceforth sending married officials out to the African possessions. It would have a tendency to alleviate certain conditions which now exist in nearly every colony. It was asking a great deal of German women to accompany their husbands into the wildernesses, where there were but the crudest means of existence and but little communication with the outside world. Under the circumstances, however, no other course was open, if a beginning was ever to be made toward introducing those rational and natural principles of colonization without which the German possessions would remain sterile of any civilizing factors so indispensably necessary if any lasting bond of connection was to be fostered between the colonies and the mother country.

The sending out of married officials, accompanied by their wives, is to be but the beginning of a comprehensive plan looking forward to the eventuality of inducing farmers, mechanics, and tradesmen, with their wives, to follow suit. According to the latest census there are in all the German colonies only 1,343 white women, namely, 32 in Togo, 90 in Cameroon, 420 in East Africa, 221 in the South Sea Islands, and 1,000 in Southwest Africa. Among this number are included many Greek and Italian women.

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CHEAPER GAS MANTLES.

THORIUM NITRATE PRICES REDUCED BY THE COMBINATION.

In January the "thorium convention" of Germans decided to kill all competition in thorium nitrate by suddenly dropping the selling price to $6.43 per kilogram (2.2 pounds), less 3 per cent discount, states the Berlin correspondent of the London Times. Incandescent gas mantles at present consist of about 99 per cent thorium and 1 per cent ceria.

Early in 1894 thorium nitrate was sold at $476 per kilogram, but dropped in price year by year, being maintained during the period from May, 1904, to January, 1906, however, at $12.61 per kilogram. The sudden drop spread consternation throughout the gas mantle manufacturing trade. The result has been disastrous to the small thorium works outside the ring with large stocks of high-priced material on hand. Some suspended operations, others went bankrupt, and the "thorium convention" was left completely master of the situation. This leads the correspondent to conclude that the Germans have made a great blunder by their speculative tactics, and have only succeeded in drawing the attention of the mercantile classes everywhere, and of the Brazilian Government in particular, to an industry which they practically had in their own hands, and in which enormous profits were being made. Formerly Germany ruled the market both for the supply of thorium and cerium nitrates and also of incandescent mantles, but now probably the monazite sand proprietors and concessionaires in Brazil and the Carolinas will combine to form an international thorium syndicate, which will deprive Germany of its present predominance in the incandescent gas mantle industry and the subsidiary chemical trade.

The mineral monazite, which contains thorium, ceria, and other rare elements as phosphates, is found in Brazil and in North and South Carolina. The richest deposits are found in sand banks along the coast of Brazil in the States of Bahia and Espirito Santo. The exploitation of the monazite deposits was first undertaken by a shrewd American, John Gordon. The Brazilians regarded the sands as of little value, and consequently permitted him to ship large quantities to Hamburg as ballast, where it was sold at huge profits to German chemical works.

OPENING FOR DENTISTS.

CITIES PRESENT GOOD FIELD FOR DENTAL GRADUATES.

Consul F. S. Hannah, of Magdeburg, suggests a possible opening for American dentists in German cities.

Investigation as to the number of practicing dentists in the city of Magdeburg, as well as in the entire province of Saxony, shows a decidedly small number in proportion to the population, especially as in recent years the Germans are coming to realize more and more the importance of caring for the teeth. Magdeburg, with nearly 250,000 inhabitants, at the present time shows only 21 practicing dentists, one

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of whom—a lady—has studied dental surgery in America and enjoys a large and profitable practice. As a further proof of this growing need, a comparison of the number of dentists to that of physicians is worthy of consideration. In the province of Saxony, with a population of nearly 3,000,000 people, there are only 90 practicing dentists, 41 of whom are in the government district of Magdeburg, 29 in the district of Merseburg, and 20 in the district of Erfurt. In the last district named there are 10 physicians to each practicing dentist; in the district of Magdeburg, 14; and in the district of Merseburg, 20. From these figures, which have been obtained from reliable sources, it is quite clear that there is an excellent opportunity for young dentists, and especially so for young American dentists conversant with the German language, to locate and build up a practice in some of the many comparatively large and flourishing cities of this province. It is only fair to assume that honest efforts would be crowned with success, as in the larger cities, like Berlin, Leipzig, Dresden, etc., where American dentists have already located, they are at the present time, in the majority of cases, enjoying enviable success.

Unfortunately, a few years ago a number of so-called "American dentists" with spurious titles brought American dental titles in general in bad repute. However, these matters have been adjusted, and at the present time, by taking the proper steps, competent dentists, graduates of reputable colleges, can establish themselves here and practice unmolested.

SUICIDE INCREASING.

WOMEN TAKING THEIR LIVES IN GREATER NUMBERS.

Consul Hannah also submits the following statistics regarding the number of suicides in Germany:

The number of suicides for the past ten years, as published in a Magdeburg newspaper, is remarkable in that it shows such slight variations in the number for each individual year. For example, in the year 1895 there were 8,285 male and 2,225 female suicides, and in 1903, 10,017 male and 2,764 female. On a basis of 1,000,000 inhabitants, there were, in 1894, 353 male suicides; in 1899, 313, and in 1904, 92, and in 1899 and 1901, 82 female suicides. Remarkable is the steady increase in female suicides, due no doubt to the increased activity of women in industrial pursuits. The total number of suicides for the years 1901 to 1904, inclusive, are as follows:

Year.	Males.	Females.	Total.
1901	9,451	2,385	11,836
1902	9,765	2,571	12,336
1903	10,017	2,713	12,730
1904	9,704	2,764	12,768

The number for the Province of Saxony is greater in proportion than elsewhere in Prussia; while the average for Prussia for the years 1901 to 1904 is 198 to 208 in each million inhabitants, the figures for this province show an average of 307 to 342. The figures, however, for some other German States show a still larger proportion of suicides.

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Reckoned on a basis of 1,000,000 inhabitants for the year 1903 there were in the Duchy of Saxe-Coburg-Gotha 473, in the free city of Lubeck 428, and in the year 1904 in the Duchy of Saxe-Altenburg 415.

SHOE POLISH.

KIND AND COLORS USED IN EMPIRE.

Consul J. I. Brittain responds from Kehl to a New York inquiry as to the prospects in Germany for the sale of shoe blacking and dressings. He offers the following suggestions:

Traveling salesmen should visit Germany with samples, as there is but little American shoe polish sold in this part of the Empire. Here there are many light colored shoes and slippers worn, which make it necessary for dealers to carry many kinds and colors of polishes. Especially is there a good market for ladies' shoe polishes, and these consist largely of creams in various colors. The most popular shoe polish sold is made in London. Several English firms sell polishes. These goods are put up in glass jars and bottles. There is a black French paste quite popular sold in flat tin boxes. These polishes usually retail for about 15 to 25 cents per jar or box. There are also a number of polishes made in Germany which bear English labels.

There is no reason why American polishes should not find a good market in Germany, and if American firms were to give exhibitions showing the merits of their goods, as some other manufacturers do, I believe they could at least divide with England the imports of such goods coming into Germany. The dealers in shoemakers' supplies in Strassburg are: Diebolt & Raess, Langstrasse 145; Delesalle-Barghan, Schneidergraben 5 and 7; August Frederic, Langstrasse 123; Armand Fuchs, Domplatz 4; J. A. Gruenbaum, Gerbergraben 33 bis, and J. L. Oppenheimer, Alter Fischmarkt 31. The Strassburg dealers in shoes are: High Life (Jules Blum), Am Hohen Steg 27; Speiers Schuhwarenhaus, Meisengasse 24; Lienhardt, Georg, Alter Fischmarkt 5; Isidor Cahn, Altar Weinmarkt 27; Spiers Schuhwarenhaus, Eisenermannplatz 1, and Thumann-Schneider, Schlauchgasse 5.

ELECTRICAL INDUSTRY.

ERA OF GREAT PROSPERITY.

Consul H. W. Harris, of Mannheim, reports that a recent German newspaper article refers to the condition of the electrical industry in Germany in its various branches as a most favorable one.

The increased number of employees in the various factories, as well as the increasing demand for electrical machinery of all kinds, and especially for mining purposes, is referred to. Among the most promising fields for German electrical machinery and appliances, South America, and especially the Argentine Republic and Peru, are named. The establishing of new plants by German companies in Buenos Aires and Montevideo is thought to give to the German electrical industry a securer foothold in South America. The sale to the American General Electric Company and to the National Electric Lamp Company of the

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right to manufacture in the United States the Tantel lamp is pronounced a victory for German enterprise sure to have a good effect. Notwithstanding the continued high price of raw materials, the outlook for an era of prosperity in this branch of German manufacturing is stated to be a bright one.

TECHNICAL SCHOOLS.

PRUSSIA'S INTENSIVE TRADES EDUCATION.

Consul G. E. Eager, of Barmen, sends a detailed account of the Prussian system of technical education.

In the Kingdom there are 19 schools in which the construction of machinery and the metal trades are taught, attended by 3,132 pupils; 33 academies of architecture with 5,285 pupils; 5 textile art, 7 high textile, and 6 trade schools, besides 21 similar professional schools that show an attendance of 14,424; 1,301 schools for professional and technical education have a compulsory attendance of 202,905 pupils, and 94 similar institutions are voluntarily attended by 23,905 scholars. Commercial schools number 254, with a compulsory attendance of 27,181 males and 927 females; also 62 schools with a voluntary attendance of 7,025. Compulsory education of females in mercantile lines has been introduced in ten districts. Technical schools, 423 in number, supported by the butcher, baker, and other guilds, have an enrollment of 28,124 students.

Prussia spends $63,359 yearly in aid of these various special schools, averaging $8.51 for each pupil. If the United States expects to keep abreast with Germany in manufactures and commerce it is vital that such technical schools be established. America's few manual training schools only poorly supply such demands.

GREAT BRITAIN.

MODERN MACHINERY METHODS.

ENGLISH ADOPTING NEW STYLES—SIMPLE PATTERNS WANTED.

Consul Marshal Halstead, writing from Birmingham, says that the many visits of British manufacturers to American factories are bearing fruit, one iron and steel manufacturer stating that he "had been through some of the shops in America where the same kind of work was done and believed their new shops were ahead of the Americans."

An English manufacturer is hardly regarded as up to date to-day unless he has seen American factories. No one who has not lived in England during the last seven or eight years can realize how great the awakening has been here, nor how changed the British mental attitude is regarding new ways of doing things. There has been much wise and clever adaptation to British cheaper labor needs of American machinery ideas. It has often been found profitable to simplify highly organized American machinery, even separating processes and dispensing with complicated parts requiring skilled mechanics to man-

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age them, substituting instead hand-guiding manipulation for automatic work.

It is held, and seems to me and to many other Americans here who know England as well as they do America, to be correct that in the making of certain classes of articles this simplification and division and the employment of girls as operators, who are paid from 8 shillings ($1.94) to 15 shillings ($3.64) a week, enables manufacturers here to produce at figures competitive with much of the work of the most modern and highly developed automatic machinery. Americans could have sold a great many of these simplified machines which still, I should remark, retain the essential principles; but American machinery manufacturers would not, I have been told, bother with the trade.

One machinery merchant here, after trying in vain to get certain American machinery manufacturers to make the kind of machines he knew could be sold here—and he told the American machinery merchants there were a great many minor business people here who could not afford the costlier type of American machinery—ultimately had designs for these machines prepared and had them made here. He could not, however, command the trade, as he did not have sufficient capital. Several machinery manufacturers have developed a very large trade out of this type of simplified American machine for use with cheap labor. Large quantities of small articles are now cut from bar stock where formerly they were cast or produced upon simple lathes, the turnings for each of the several tools in a turret lathe being done by hand. It has revolutionized the brass trade.

WATERPROOF GARMENTS.

METHODS OF TREATING WOOLEN FIBERS FOR RESISTING WEATHER.

Consul Halstead develops some practical points on the weatherproofing of woolen cloth that will be of interest to the textile trade, autoists, and others. He writes:

"An American" asks a London paper whether a tailor is deceiving him when claiming that "none but a person altogether ignorant of homespun would object to the presence of oil on them." The American ordered a suit of brown homespun clothes, and found that it stained brown everything it touched. To his complaint the tailor declared that the brown smears were a proof of the excellence of the homespun and of its genuineness. The stain, he declared, was the natural oil of the wool, which only the best homespuns contain.

Motoring demands clothing which will protect the automobilists from the winds and rains so piercing from driving at high speed. Garments of leather or rubber do not provide sufficient ventilation, and many believe wool would be the ideal material for motoring if it could be made waterproof. While it may be woven thick or tight enough to screen the wearer from piercing winds, it is questionable whether wool treated with a rubber solution or "proofed with chemicals" retains all of its ventilating qualities, whether such proofing is permanent, and whether pressing does not cause the waterproofing solutions to evaporate or stiffen. The writer's experience is that mackintoshes or proofed cloth coats laid aside during long dry periods either lose their waterproof qualities or become stiff. Such proofed coats are injured by being pressed by a tailor.

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THE NATURAL OIL OF THE WOOL.

Certain of the "homespuns" made by the Scotch crofters and other peasants have great water-resisting qualities. This is said to be due to the fact the spinners and weavers do not have facilities for washing all the oils out of the wool, or where manufacturers make imitation homespuns they do not care to take the oil out, and enough of the natural oil remains to cause the cloths to be suitable for rainy days and for misty districts. These are popular, despite the smudge which may occur in the way the complaining American asserts.

There has been much discussion in motor papers regarding the proper clothing for automobilists. One woolen manufacturer who makes a specialty of such clothing claims that in the simple peasant manufacture of cloths fast dyes can not be secured because the makers have to leave so much oil in the wool. He believes his success to be due to the fact that he first has the wools scoured so thoroughly that no oil remains in them, and then dyes them, with the result that the wools are absolutely fast dyed. The oil which had been extracted before dyeing is then put back on the wools. He gets a fast dye and a cloth which is rainproof and also warm. This may serve as a pointer to American woolen manufacturers, but I do not know that his contention can be sustained, for with woolen textiles it is always a question how far the natural oils can be extracted without making the wool too dry and causing it to lose its best qualities. A friend who is a manufacturer of carpets and dyes his yarns maintains it is not necessary to extract all the oil from wool for fast dyeing when natural dyes are used, and points to the Turkish carpets, but believes when aniline dyes are used the oils must be extracted.

COMBINATION CLOTH METHODS.

Another waterproof-clothing manufacturer is having considerable success by combining different kinds of weaving in the two or three cloths he uses in making up a single garment. He waterproofs with "chemicals" the yarns before weaving, and, while he does not make the claim direct, gives the impression that rubber is not a component of the waterproofing solution. A cloth of very hard twisted yarn, woven tight, makes an outside layer. There is an inner layer or lining of more loosely twisted and woven cloth, the weave running in a different direction. This lining is soft and has a smooth surface to reduce the friction, thus reducing the capillary action. In some garments a third layer, preferably of smoothly finished silk, is inserted between the waterproofed outer cloth and the "lining."

I have an article of this make. It has two layers, and while quite rain proof and suitable for motoring in warm weather, I should prefer to experiment with a much heavier type of this fabric before pronouncing the invention a complete success for automobile service. It was thought that furs which keep animals warm in northern latitudes should make good motoring garments, if the fur be placed on the outside. But the animals which bore these furs were never exposed to air at such high velocities, and it has been found better, I understand, to put the fur inside a garment.

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FRUITS AND JARS.

INCREASED SALE OF BOTH POSSIBLE.

Replying to Consul Halstead's questions regarding the sale of American fruits in that district, the managing director of the largest grocery and provision store in Birmingham said that of dried and evaporated fruits plums only had a large sale, the demand for the other kinds being only moderate. The consul writes:

It is my opinion that if some association were to give a demonstration of proper methods of cooking and treating dried and evaporated fruits at some of the food exhibitions held annually throughout England, or if the demonstrations were given on the same system which American breakfast food manufacturers employ, the sale of dried and evaporated fruit would greatly increase. The sale of canned fruits, my informant said, was very large, but bottled goods have a small sale, owing, no doubt, to the fact that the cost is so great. Bottled fruits are of course preferable in a country where canned (tinned) goods are feared. These goods are purchased through commission houses in England and they buy largely through agents at prices to include insurance and freight. Deliveries are very prompt and the present method of packing is regarded as satisfactory, but the gentleman thought if greater care were exercised in grading the business would largely increase.

When the jam, jelly, and fruit preserving time comes along in England the newly arrived American woman is surprised to find she can not buy the kind of jar which American women use, and when she consults some friendly English woman she finds that the older oil paper or some equivalent sealing method is used. The American woman generally sends to some relative or friend in the United States and gets a number of American jars sent over. It occurs to me to suggest that an attempt should be made to introduce American-made jars on the market of Great Britian. It can not, however, be done easily. It must be accompanied with education in the shape of demonstration, etc. I should, however, feel sorry if by inviting attention to this matter I should induce any American manufacturers to attempt to do business in this country, by correspondence. This is a competitive manufacturing country, and it is always a mistake to attempt to do business in a foreign and competitive country in a casual and incidental way.

BIRMINGHAM PRECAUTIONS.

MANY LIVES SAVED THROUGH WATCHFULNESS.

Consul Halstead also reports on some of the methods in Great Britain for the saving of lives as follows:

The Birmingham city council has increased the number of women health inspectors from 4 to 20, because of the excellent results achieved in the homes of the poor and in the factories. "First aid to the injured" is another excellent civic work in Birmingham, members of which respond to calls even when involving loss of money or pleasure.

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The Birmingham policemen have also been taught the principles of "first aid."

England's few boiler explosions and persons killed and injured as compared with those of America is shown by a report of the board of trade. During the 12 months ending June 30, 1905, there were 14 persons killed and 40 injured from British steam-plant accidents, smaller returns than for any year since the boiler-explosions act of 1892 was passed, the average for the past twenty-two years being 28 persons killed and 60 injured. On the other hand, The Locomotive, published at Hartford, Conn., gives 383 persons as killed and 585 injured in the United States. The number of steam boilers in America does not exceed by 50 per cent those in Great Britain, hence the total number killed in the States should not exceed 40 per annum, whereas the actual death roll is nearly ten times this amount, a fact which speaks volumes for the bad design and reckless working associated with American boiler practice. Heavy fines are imposed in Great Britain on factory owners, engineers, engine builders, and others to whom any blame attaches for explosions.

SMOKE IN LONDON.

ITS CONTROL DOES NOT REACH OTHER DESTRUCTIVE MATTER.

Consul-General Wynne, writing from London, says that the smoke nuisance, so prevalent in the larger cities of Great Britain, is controlled to some extent by legislation and municipal regulations, but a new feature in this line is an official objection from the London commissioners of public works to the destructive effects in the emission of sulphurous and sulphuric acid from huge smokestacks, and from those of electric generators in particular.

The commissioners state that their attention has been called to the large number of bills introduced into Parliament this session for the grant of powers for the generation and supply of electrical energy in London, and that these involve the development of generating works. As the public department in charge of the royal parks and gardens, the commissioners state they have felt a growing apprehension as to possible injury from the products of combustion emitted by these extensive generating works to the life of the trees, plants, and flowers in the parks, and are not free from doubt whether the great national treasures in the museums and picture galleries are not exposed to danger from this same cause. They think it right, therefore, in view of the introduction of all these legislative schemes, to invite the attention of Parliament to the point, so that it may be fully taken account of in any inquiry upon those schemes. The case, they say, is not entirely one of the emission or consumption of black smoke or sooty or tarry matters. The other products of combustion, such as sulphurous and sulphuric acid, with solid particles of mineral matter or ash, are very deleterious to vegetation, to buildings, and to pictures, marbles, metals, and other museum exhibits.

SULPHURIC ACID PRINCIPAL ENEMY.

The commissioners proceed to point out that, although the owners of generating stations are liable to the ordinary law against the negli-

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gent emission of smoke, the position is somewhat different as to other products mentioned. They consider that the cluster of generating stations growing up in the near neighborhood of Regent's Park and other works may justifiably cause them peculiar uneasiness because of their situation. It would appear, the memorandum continues, that smoke with its sooty and tarry particles can be so well consumed by proper apparatus that no danger ought to arise in that respect. Effectual means should be taken to secure that apparatus of the most approved character shall be employed for the consumption of smoke. The use of dust-destructor refuse as fuel should be altogether prohibited. But the principal enemy to be combatted is sulphuric acid, the production of which can be much diminished, if not entirely prevented, by pouring limewater on the coal before it goes into the furnaces; and the commissioners think that this condition, the fulfillment of which would involve small expense and not much labor, might reasonably be insisted upon.

ALCOHOLISM DECLINING.

SENTIMENT GROWING IN FAVOR OF SOBRIETY.

Consul Frank W. Mahin, of Nottingham, in writing on the "Decrease of drinking and drunkenness in England," says:

The truth of such a statement would probably be doubted by the casual observer of the number of intoxicated people on the streets and of men and women entering public houses. But the evidence is derived from a comparative study of social conditions and from the customs returns and the reports of beer-brewing companies. No doubt another trustworthy guide is the tendency of public sentiment, which is unquestionably in the direction of sobriety. Temperance societies in this country are growing in numbers and influence. Outside of these, the abuse of intoxicants in its relation to mental and physical health is receiving much attention. A special committee last year made an exhaustive investigation of the subject and reported to Parliament. The substance of this report was, at the request of temperance societies, published by the authorities of several London and provincial boroughs through placards posted on billboards and distributed in factories and workshops. The Nottingham placard, signed by the chairman of the city council's health committee, the city's medical officer, and the town clerk, reads as follows:

The report of the committee presented to Parliament by command of His Majesty states that:

The abuse of alcoholic stimulants is a most potent and deadly agent of physical deterioration.

Alcoholic persons are specially liable to tuberculosis and all inflammatory disorders.

Evidence was placed before the committee showing that in abstinence is to be sought the source of muscular vigor and activity.

The lunacy figures show a large and increasing number of admissions of both sexes which are due to drink.

The following facts, recognized by the medical profession and placarded all over France by order of the Government, are published in order to carry out the recommendation of the committee and to bring home to men and women the fatal effects of alcohol on physical efficiency:

(1) Alcoholism is a chronic poisoning, resulting from the habitual use of alcohol (whether as spirits, wine, or beer) which may never go as far as drunkenness.

(2) It is a mistake to say that those doing hard work require stimulants. As a fact no one requires alcohol as either food or tonic.

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(3) Alcohol is really a narcotic, dulling the nerves, like laudanum or opium, but is more dangerous than either in that often its first effect is to weaken a man's self-control, while his passions are excited; hence the number of crimes which occur under its influence.

(4) Spirits, as usually taken, rapidly produce alcoholism, but milder alcoholic drinks, as beer, and even cider, drunk repeatedly every day produce, after a time, alcoholic poisoning with equal certainty.

(5) The habit of drinking leads to the ruin of families, the neglect of social duties, disgust for work, misery, theft, and crime. It leads also to the hospital, for alcohol produces the most various and the most fatal diseases, including paralysis, insanity, diseases of the stomach and liver, and dropsy. It also paves the way to consumption, and frequenters of public houses furnish a large proportion of the victims of this disease. It complicates and aggravates all acute diseases; typhoid fever, pneumonia, and erysipelas are rapidly fatal in the subject of alcoholism.

(6) The sins of alcoholic parents are visited on the children; if these survive infancy they are threatened with idiocy or epilepsy, and many are carried away by tubercular meningitis, or phthisis (consumption).

(7) In short, alcoholism is the most terrible enemy to personal health, to family happiness, and to national prosperity.

This action of city governments, chosen without reference to the temperance question, is the strongest possible indication of the trend of public sentiment, and, though in itself an effect, is likely to be a prime cause in furthering the temperance movement in this country.

FARMING SETBACK.

SHORT CROPS REQUIRE HEAVIER FOOD IMPORTS.

The prospect for crops in Great Britain is reported by Consul Mahin to be somewhat discouraging this year.

The past winter was unusually dry, the want of rain amounting almost to drought. The early part of the spring was also comparatively dry, though there was sufficient moisture to give vegetation a fair start during a spell of warm and sunny weather, which also developed fruit buds, in the first half of April. Since then the weather has been abnormally cold, and the month of May witnessed severe frosts, killing to all but hardy vegetation and fruit buds. Irreparable injury has been done, and the season, on the whole, is about two weeks late. The hay crop will almost certainly be short this year and comparatively little old stock is left to carry over. Exceptionally few haystacks are seen in the midlands. The cold has seriously retarded pastures, and instead of stock subsisting as usual by grazing it must be mainly fed from last year's product. Hay is consequently high priced, the last quotation in the Nottingham market being $22 a ton. Nearly three times as much hay is now being imported from foreign countries as at the same time last year. Hops, which made a record yield last year, have an unpromising outlook now. Potatoes are much retarded, but may yield well if the summer proves favorable. Wheat sown last fall is about the only farm product of which gloomy things are not said. The reports indicate at least an average crop, and possibly more.

LAMBING RESULTS POOR.

British sheep have also been seriously injured by unfavorable weather—irremediably, too, and its case is therefore worse than that of any vegetable product, which has a chance to recuperate. The lambing season is now about ended and the result is the poorest

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for several years. The season is described as "difficult, backward, and protracted." The number of lambs is less this year than usual. The number per 1,000 of ewes is about 10 less than in 1904 and about 34 less than in 1905. It is not expected, however, that sheep farming will prove disastrous this year, as prices of wool are highly favorable and mutton is in prime demand.

Altogether, the present indications are that Great Britain will require increased supplies from foreign countries to supplement her 1906 agricultural product.

WOOL TRADE.

GREAT ACTIVITY—PRICES ADVANCING.

Consul Mahin also reports from Nottingham that in harmony with other British industries this year the wool trade is exceedingly flourishing.

Now that shearing time is at hand, the question of markets is being considered by interested parties, and the conclusion is reached by at least one fair-minded expert that not for over thirty years have prices and conditions been so good as they are to-day. The conditions in April were all toward making higher prices, and another upward movement is noticeable in May. This surprises even well-informed persons, in view of the continuous and unprecedented rise in wool prices during the past four years. It is noted, besides, that there is a complete absence of speculation, advancing prices being purely the result of a bona fide demand. It is remarked that the satisfactory quantities of wool absorbed by America are helping to sustain values.

High prices are made for wool still on sheeps' backs, which fact, with other indications, points to an indefinite continuance of current values, if not yet higher. The calculations of experts are not based solely on local conditions, but on the unprecedented consumption apparent everywhere, for they say in every manufacturing country the world over wool users are uniformly busy, with no present indications of any slackening machinery. The only possible check to high prices now apparent, according to expert opinion, is in augmented supply. Australia, for instance, is expected next year to make a record wool clip, current conditions there being highly favorable to such a result.

IDLE WORKINGMEN.

PROVIDING WORK FOR THE UNEMPLOYED IN NOTTINGHAM.

Mr. Mahin also tells of the winter's work of the "distress committee" of that city in securing jobs for idle men. This work was undertaken throughout England under an act of Parliament, and Mr. Mahin's report shows what has been accomplished in that city of a quarter million people for the relief of the unemployed, as follows:

The total number of applicants for work in Nottingham was 741, with 1,739 dependents; 377 were passed as suitable for such work as the committee could find, but 74 of these obtained other work for themselves, or were given other work as a result of the committee's help and inquiries, while 113 applicants found work before the committee

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could pass upon them. Of the 303 accepted applicants left on the register, 270 were given work by the committee, leaving 33 less needy, for whom no work was found. Two men and their wives were sent to Canada at their request. One-third of the applicants did not come within the act for want of proper character, for insufficient length of local residence, or for being chronically unemployed or unemployable.

Many men obtained employment who, perhaps, had become fearful of ever doing so again, and were sinking into a state of despondency from which it would have been almost impossible to raise themselves. As a result of the committee's inquiries of former employers a connection has been established between it and many factories and business concerns, which is expected to be of great service to both seekers for and hirers of labor.

The work provided by the committee was on recreation and other grounds owned by the city, some of which had to be done in any event at the public cost. The average length of employment for each man was six weeks, at about 9 cents an hour—three-fourths of the usual rate for unskilled labor. The total outlay was $5,300. Of this the city paid about $1,800. In other cities the same general course was pursued. Some, however, were burdened with a much heavier proportion of unemployed than was Nottingham.

COAL OPERATIONS.

WELSH EXPORTS EXTENDING—MINERS' WAGES ADVANCED.

Consul D. W. Williams, of Cardiff, reports that the announcement by the British Government that the tax of 1 shilling a ton on coal exports will be removed November 1 has been followed quickly by the granting of an advance of 2½ per cent in the wages of Welsh miners. The consul continues:

This action was taken by the conciliation board May 10, when the miners demanded an advance of 3¾ per cent. The advance began on June 1. Other causes have contributed to the present improvement in the Welsh coal trade, for the statistics for the first four months in 1906 show that there has been an increase in the volume of business and an advance in price at the same time. The six south Wales ports engaged in the exporting of coal, with the tonnage and the increase of each, during the months of January, February, March, and April, as compared with the corresponding period in 1905, are indicated in the following table:

District.	Tons exported.	Increase in tons.
Cardiff	5,340,586	579,311
Newport	1,136,681	117,583
Swansea	773,526	219,103
Port Talbot	305,317	63,889
Neath	37,667	3,865
Llanelly	80,923	20,613
Total for South Wales	7,674,600	1,004,314

Some of this increase was due to the disturbances in the American coal trade, for several shipments were made to Canada and other mar-

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kets supplied by American coal men. Other increases are due to the growth of the trade with South America. Several of the republics on that continent are selling great quantities of grain and meat to British merchants, and the exchange is made with Welsh coal, which gives shippers two freights. Buenos Aires and Montevideo are the heaviest buyers of Welsh coal, but many other smaller ports offer a steadily growing market. During April Buenos Aires took 62,373 tons from Cardiff and 43,291 tons from Newport, and Montevideo took 67,516 tons in the same time from Cardiff.

BRIQUETTES FOR MEXICO—HIGHER PRICES.

Another item that concerns American producers is the increase in the exports of patent fuel, as compared with the same period in 1905, viz, Cardiff, 48,388 tons; Newport, 16,144 tons; Swansea, 36,931 tons; Port Talbot, 20,193 tons. Much of these exports has gone to Mexico and to tropical ports, where this fuel is found to be better adapted than coal to withstand climatic conditions in storage.

The auditors of the conciliation board note that the average price of Welsh coal, large, during the past three months was $3.04 a ton, while smalls averaged $1.77 in the same period. The price is steadily advancing, however, and the quotations on May 11 were $3.71 to $3.77 for the best Cardiff coal, and for patent fuel from $3.89 to $4.02, according to brand.

A feature worthy of consideration is the fact that the conciliation board, which adjusts all the relations between men and miners, is succeeding in preventing any undue disturbance of trade conditions. During the year 1905 it reduced the wages of the men each quarter without precipitating a strike. At the end of the year it succeeded in formulating a satisfactory agreement for the four years beginning January 1, 1906, and it has now advanced the wages of the men, although the tax will not be removed until November. Its success under these various conditions commends the plan to the consideration of the men and masters in the American coal industry.

VITAL STATISTICS.

LOW BIRTH RATE IN ENGLAND AND WALES.

Consul Williams also sends from Cardiff a brief summary of the vital statistics of England and Wales for the year 1905, which shows that the birth rate is the lowest on record:

The total of births was 929,457, a rate of 27.2 per thousand, which is 0.7 per thousand lower than the rate for 1904, and 1.8 lower than the rate for the past ten years. The highest rate in the country was recorded in two districts in Glamorgan County, 37.5 in the Rhondda district and 38.3 in Merthyr Tydfil. The population in these districts is almost purely Celtic, the elements being Welsh and Irish. In England the highest birth rate occurs in the poorer districts in the large cities.

The number of deaths in England and Wales during the year was 519,939, an average of 15.2 per thousand. For this low rate the decreasing birth rate is partly responsible, as the death rate was very high in those centers where the birth rate was high. Rhondda led,

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with an average of 200 per thousand among infants under one year; Hanley came next, with 195 per thousand; and Merthyr Tydfil third, with 193 per thousand. The average infantile mortality was, however, only 128 per thousand, a decrease of 17 since 1904, which is a most creditable showing, so far as it goes. The high death rate in Wales is due largely to improper feeding and unwholesome surroundings, due to overcrowding and unsanitary conditions. It has been proposed, as a measure to secure the cooperation of parents with the health authorities in an effort to save the infants, to offer 1 guinea each for every infant reared until it is one year of age, after which the death rate falls rapidly.

The natural increase in England and Wales per thousand is 12, but Merthyr Tydfil, which had a death rate of 22.1, the highest in the island, showed a natural increase of 16.2, which indicates that the virility of the people is still unimpaired. Great attention is now devoted to housing, and the rate of infantile mortality will no doubt be lowered in the years to come.

The number of marriages in England and Wales during 1905 was 260,489, a slight increase over the record for 1904.

GRAPE JUICE.

PROPOSED DUTY BY WINE ASSOCIATION.

The British chancellor of the exchequer in his budget statement regarding the manufacture of what is known as "basis wine"—so called because it is of a neutral character, and can be used to cheapen foreign descriptions—wanted a duty imposed, asserting that there was a large loss of revenue.

The Wine and Spirit Association has taken up the matter and asserts that British wines containing very often about 25 per cent of proof spirit are exempt from duty, while light wines from foreign countries and the colonies, which contain much less alcohol, pay 31 cents per gallon duty. This has resulted in an extensive production of wine in Great Britain. Large quantities of scientifically treated grape "must" (unfermented grape juice) paying no duty are imported for the purpose of being converted into "foreign wine." In 1905 the quantity of grape juice imported into Great Britain was 783,000 gallons, of which a large proportion was fermented and made into wine without paying duty. Of that quantity no fewer than 187,231 gallons were entered as "condensed must." This amount was undoubtedly imported, the Wine and Spirit Association asserts, for the purpose of being made into wine, and when mixed with water and fermented could be converted into about ten times the amount of wine, which at the regular rate of duty would have to pay nearly $500,000 in duties.

The merchants who import foreign wines claim to be at a great disadvantage, and for that reason want a duty imposed on this imported "must."

UNDERGROUND TELEGRAPH WIRES.

EXTENSION OF SYSTEM THROUGHOUT COUNTRY.

The British postmaster-general has written a letter to the Association of Chambers of Commerce, which memorialized him in favor of laying

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all trunk wires underground to obviate delays by storms, to the following effect:

In reply I am able to state that the underground line between London and Glasgow has now been completed. The spur line to Manchester has been continued through Bradford to Leeds. In the south an underground line has been laid from London eastward as far as Chatham and westward as far as Slough, and thence a pipe, but not yet a cable, as far as Reading. During the present year the postmaster-general hopes to extend this pipe line to Bristol and to provide a cable as far as Chippenham. The postmaster-general trusts that the chamber of commerce will see that such a programme evidences a desire to extend the underground system of telegraphs as rapidly as can reasonably be made.

It is proposed to extend the underground wires to the landing places of important Atlantic and Mediterranean cables throughout Great Britain.

IRELAND.

SCHOOL OF AGRICULTURE AT DUBLIN UNIVERSITY.

Vice-Consul A. D. Piatt writes that, after over three centuries from the date of its foundation, Dublin University has decided to grant diplomas in agriculture to students of the university or external students on the results of two years' study in the school of agriculture which has just been started.

The courses to be taken by students of agriculture will consist of—(1) Elementary science in relation to agricultural operations being teaching by lectures, demonstrations, and laboratory work. (2) Practical agriculture. This course will extend over both years and will be partly carried out by lectures from the professor of agriculture, but mainly by residence with the professor of agriculture during portions of the year at his farm. It will embrace a practical knowledge of the treatment and management of tillage, of grass lands, and of live stock. (3) A course in veterinary science. (4) A course of engineering as applied to agricultural purposes. (5) A course in entomology and other subjects.

Entrance to the school of agriculture will be by passing an examination in general education or by matriculation in the university. The first examination will be held next October.

MALTA.

MARKET FOR MACHINERY.

Consul John H. Grout, of Valetta, has recently received several letters from American manufacturers asking for information relative to the market in Malta for various kinds of machinery working metal. Mr. Grout responds:

These islands afford very little demand for machinery of any kind and it will probably be many years before the few who could use modern machinery and tools will be willing to desert their primitive

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methods for more progressive. Aside from the large British dockyard, there are only a few small machine shops. Recently there was established a large mill for wood working, the machinery of which is mostly American, brought from English and other markets, and is well supplied. An English firm is finishing dry docks and a breakwater, for which it is said large amounts of tools and machinery were secured from the United States.

FRANCE.

COLONIZATION CONTRASTS.

AMERICAN AND FRENCH SYSTEMS COMPARED—EXPANSION IN ALGERIA.

Consul-General Robert P. Skinner, of Marseille, furnishes an interesting report on French colonization in Algeria, contrasting the policy of France with that of the United States in the bestowal of public lands and franchises. The consul-general writes:

A comparison between French and American colonization methods emphasizes nothing more certainly than the deplorable extravagance with which as a people we are disposing of our public and semipublic lands, heedless of the consequences to future generations of our own flesh and blood, generations for whom we are joyfully preparing the sort of a future from which a migratory European peasantry is to-day seeking to escape. Not only are we officially giving away our unsettled Government lands with very little restraint, but we are also, through our great railroad corporations, spreading broadcast in Europe an invitation to the poor and the oppressed to hurry over to the "paradise for the poor man or the man with small means." The words between quotation marks are those of an American immigration agent, whose circular letter is before my eyes. He adds: "For those unable to purchase land we can furnish it to be worked on shares or for cash, and can furnish them with teams, implements, and a good house to live in."

EXTENT OF FRENCH COLONIAL DOMAIN.

French colonial expansion has taken place on no such unsettled theories, but it has taken place nevertheless very certainly, and in many respects very admirably. The extent of the French colonial domain, the most of which has been acquired within the memory of the present generation, is not fully realized. Still less is known of the organization of these regions, which has been pushed forward systematically since their acquisition, and always with the fixed purpose of assuring the economic future of the French people. Some public authority remarked the other day that the period of the acquisition of the French domain constituted the heroic age, and that it belonged to the present and to future generations to develop tranquilly and methodically the vast empire under French control. We are all bound to admit that, whatever criticism we may feel disposed to visit upon the accomplishments of the past or projects for the future, these things are done in order to create within the colonies those homogeneous conditions which suit the French people and content them with their own country.

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ACCOMPLISHMENTS ILLUSTRATED.

The Colonial Exposition opened at Marseille on April 15 is a revelation of the accomplishments in the French colonies frequently secured under climatic conditions least favorable to European development. This exposition is the first carefully coordinated manifestation of the results of French colonial effort, and it is a refutation in itself of the often-expressed conviction that the Latin countries can not successfully colonize. Wherever the Frenchman has gone within the last forty years he has taken his engineers, he has built highways for all time, he has classified with patient minuteness the resources of the soil, he has built or projected railroads, and he has laid down the general lines for a proper development of the bounties of nature.

The purpose of this exposition is to furnish an object lesson to the French people themselves, little given to travel ordinarily and often inclined to be pessimistic in regard to the worth of the sacrifices made to secure and utilize the distant colonies. But if the French people themselves are invited to profit by their opportunities there is no indiscriminate hospitality tendered to the entire world. The usual qualifications "essential" to the admission of applicants for public lands are: French nationality, headship of a family, knowledge of agricultural matters, possession of sufficient funds to exploit a concession, and an agreement to reside during ten years on the land granted.

METHODS PRACTICED IN ALGERIA.

In this connection I wish to submit, in the terms of the French Government itself, a statement of what has been done in Algeria, the greatest of the French colonies, and the proposition to the colonist who is creating in northern Africa another and very admirable France:

Algeria is situated directly opposite the coast of France, a day's journey by sea from Marseille or Port Vendres. Of all the European nations, France alone possesses a colony so near and so easy of access. The colonizable portion of Algeria is almost equal in extent to the whole of France. But, on the one hand, it is more mountainous and less evenly watered, which reduces the area available for exploitation; and on the other hand its conquest only dates back some forty years. These facts explain why the native population, although almost doubled in thirty years, does not exceed 4,000,000, and why, in spite of the great facilities for visiting the country, the white race numbers only 600,000 persons, of whom rather more than one-half are French. The colony is capable of sustaining a much larger number.

ECONOMIC EQUIPMENT.

Algeria's economic equipment is important and is daily being perfected. It contains 18,641 miles of national roads and other highways and routes. In the interior of the colony more than 16,776 miles of conducting wires and nearly 600 offices are devoted to the postal telegraph and telephone services. By the cooperation of railway and steamer from four to six French mails weekly are possible throughout almost the whole colony. The postal, telegraphic, and telephonic rates are identical with those of France. All the centers are provided with schools. The fiscal burdens are appreciably less heavy than in France.

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Unbuilt property is free from taxation, as are also doors and windows; registration and stamp dues are lighter, and no monopoly exists of matches or tobacco.

AN AGRICULTURAL COUNTRY.

Algeria is supremely an agricultural country. The vine constitutes, more particularly in the department of Algiers, the favorite article of culture of the colonists. Cereals predominate in the departments of Constantine and Oran. In the whole of Algeria they occupy 7,264,871 acres, producing on an average 73,487,400 bushels, representing an approximate value of $57,900,000.

The cultivation of fruit trees is susceptible of an enormous development. Among these the olive trees take a foremost place, those in actual bearing exceeding 6,000,000 in number and yielding approximately 39,625,570 gallons of oil, with an average value of $4,632,000. The plantations of fig trees have of late years rapidly assumed important proportions, the exports from Algeria amounting in 1901 to 20,606,604 pounds, and in 1902, 25,738,920 pounds.

Stock farming also constitutes an important resource of the colony, the annual exportation to France of sheep alone amounting to nearly 1,500,000 head. Much remains to be realized under this heading.

CARE OF THE COLONY.

With a view to completing the peopling of the colony by the French, the government general of Algeria chooses annually various regions which it connects by highways with the neighboring centers. To these districts it brings the water necessary for the needs of the inhabitants and for irrigation. The government general also causes to be built the public buildings essential to a village, and provides the administrative, educational, and medical services. The region is divided into a certain number of concessions which comprise a building lot in the interior of the village and one or more lots devoted to the kinds of culture suitable to the region. The total area of the concession varies according to the locality between 40 and 80 hectares (98.84 to 197.68 acres) and even more, when it may be deemed necessary. The concessions are allotted gratuitously, subject to certain conditions set forth hereafter.

SALES TO CAPITALISTS.

Furthermore, the government general offers to French capitalists certain lands particularly rich or bordering on regions already settled. These lands are allotted in estates of varying extent, proportioned to the means of the applicants, but sufficient to assure a good annual revenue. They are sold openly at advantageous prices, but with certain obligations. There exist also in the centers of colonization industrial groups, comprising a town lot and a garden or small culture lot varying in area from a few ares (1 are equals 119.60 square yards) to 2 hectares (4.94 acres). These groups are mostly sold privately, with an obligation to build thereupon. Finally, in the villages upon the seacoast or in the most picturesque wooded or mountainous districts there have been reserved a number of lots, suitable for the establishment of summer resorts, for sale on special terms.

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QUALIFICATIONS AND RIGHTS OF APPLICANTS.

The following qualifications are essential to the admission of applicants for concessions: (1) French nationality, (2) headship of a family, (3) knowledge of agricultural matters, (4) possession of sufficient funds for the working of the concession (minimum $965), and (5) an agreement to reside during ten years on the land granted. (This may in certain cases be reduced to five years.)

The applicant obtains immediate possession of the land granted, subject to the following restrictions and conditions of forfeiture and cancellation: He shall transport his household and reside upon the concession with his family in an effective and permanent manner during ten years from date of taking possession; he shall take possession within six months from the date of his admission; he is required, moreover, to construct upon one of the lots dwellings and necessary buildings, and to install therein the cattle and equipment corresponding to the extent of the concession and the nature of the culture undertaken.

The concessionaire who, in addition to fulfilling all the foregoing obligations, has effected upon his lot useful and permanent improvements, and erected buildings of important value, may, after five years, be freed from the condition of residence, on condition that he remains personally responsible for the good exploitation of the lands during the remainder of the term.

The concessionaire who has fulfilled all the foregoing conditions may cede his lands to any person meeting the conditions required of concessionaires. The deed of transfer is submitted for the approval of the authority granting the concession. The grantee is then substituted for the grantor in respect of the accomplishment of his obligations.

Previous to the expiration of a delay of ten years from the date of satisfaction of the conditions of residence and exploitation before mentioned, the lands granted may not be transferred by deed of gift or otherwise, except to persons fulfilling the conditions required for the attribution of the colonization lands.

POISONOUS BEANS.

SERIOUS TROUBLE FROM USE OF JAVANESE PRODUCT.

Consul-General Skinner also reports that the importers of dry beans at Marseille, where this trade is considerable, are much agitated in consequence of the interpretation placed upon the fact that certain live stock in various parts of Europe died after eating Javanese beans.

In a letter addressed to the minister of commerce by the president of the Marseille Dry Vegetable and Grain Syndicate it is stated that the mayor of Havre has interdicted the sale and detention of beans from Burma, Java, and the Sunda Islands, and elsewhere. Several other severe and important similar measures are reported to have been taken. The president of the syndicate, Mr. Piazza, says: "A single fact has given this alarm to the public—and it is not imputable to Burma beans—the importation in 1905 at Rotterdam of 4,000 bales of East India beans, generally denominated Java beans. Four cases of

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poisoning were established after their arrival. In November and December other accidents were reported among the horses, cattle, and hogs in three localities in Hanover. Another case was established in Scotland, clearly due to Javanese beans. At Paris some horses died from the same cause, and in the Eure some barnyard animals were poisoned. These accidents in France were caused in reality by beans which could not be sold for alimentation in Holland, Germany, and Scotland."

CHEMIST'S REPORT ON BEANS.

Mr. Piazza explains that the further importation of these beans will be fought by his syndicate, and that the Burma beans have never given cause for complaint or administrative measures. "We are persuaded," he writes, "that the administration will maintain rigorous measures only against Java beans, alone dangerous and destructive. We are at your disposition to submit type samples of Burma white beans to the interested services. The importance of the interests engaged is so considerable that a prompt decision should be forthcoming, and that suspicion should no longer attach to a commercial product highly appreciated by the working classes."

Mr. Piazza also discusses the chemistry of the white beans of Burma thus: "A delegation from our Marseille syndicate was received on March 12, 1906, by M. Guignard, of the Institute, director of the Superior School of Pharmacy of Paris. His communication to the Academy of Sciences on March 5, upon 'beans and hydrocyanic acid,' had been received with profound attention. Samples of Burma beans were shown to him, and whereas Javanese beans upon being analyzed gave from 102 to 150 milligrams per 100 grams, the raw Burma white beans gave 7, 6, 5, and even 4 milligrams. His work showed an average of 6 milligrams. All exotic beans contain in a raw state traces of acid, those of Madagascar 2.7 milligrams, those from Cape Colony (cultivated equally in Provence), 0.00008 gram.

COOKING KILLS HYDROCYANIC ACID.

"But after cooking all traces of acid disappeared from the beans and the consumption offered no danger, particularly if they were seasoned with vinegar. Beans are never consumed raw except for the alimentation of live stock, and as for the Burmah-Rangoon beans, their price never having been below $3.86 per 220 pounds, no quantity has ever gone into live-stock food. Just as the manioc of the poisonous family of the euphorbium is never consumed in a state of nature and is converted into tapioca, just as the raw potato is a violent poison after germinating, so the Burmah beans offer no danger upon being cooked, and no case of poisoning can be imputed to them since their appearance in the French market."

Reference to the report of M. Guignard's communication to the French Academy of Sciences, on March 5, brings to light this statement from the official journal:

"Recently we have received from India, for stock food, quantities of a special sort of a bean, the phaseolus lunatus linné. Originally from South America, probably Brazil, this plant is found in almost every tropical country and has furnished several varieties. Among

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these varieties are the beans of Lima and Sieva, abundantly cultivated for human alimentation in North and South America, Africa, and Madagascar. In a wild state this plant has given place to numerous poisonings due to hydrocyanic acid. In March, 1905, there arrived at Rotterdam 4,000 bales of Krotok beans. Forty persons were fatally poisoned by these beans. In November and December last similar beans, sold as Java beans, occasioned numerous accidents among horses, cattle, and hogs in Hanover.

"M. Guignard has received from Paris, Lyon, and Marseille many samples of similar beans, Burmah beans, Indian dwarf beans, etc., all containing hydrocyanic acid. The grains are of various colors in the same sample, black, brown, violet, red violet, rose violet, maroon, dark pomegranate, mahogany, deep and light buff, and white. The hydrocyanic acid in 100 grams of beans varies sensibly between 102 and 8 milligrams and even less. The danger from these beans is to be the most feared when utilized raw. The danger is less when they are cooked."

AMERICAN DANGER SMALL.

The foreign beans and peas received in the United States in 1905 amounted to 472,572 bushels, valued at $628,775. These imports vary greatly according to American crops. It is safe to say that comparatively few cheap beans are received for cattle feeding. In France the importation in 1905 amounted to 27,529 tons. There is sometimes a considerable reexportation from Marseille of beans—the highest grade of Danube beans, and therefore not under the condemnation of M. Guignard—to the United States. The last time such exportations became important was in 1904, when they amounted in value to $100,034.

WHAT PARIS EATS.

FOOD BILL OF THE CITY FOR ONE YEAR.

Consul-General Mason furnishes the following interesting report on the quantity of food stuffs consumed annually in the city of Paris and the value of each article and commodity:

The maintenance of the "halles" or public markets of Paris under strict municipal control enables the city authorities to not only supervise carefully the condition and quality of the food materials furnished to the 2,780,000 inhabitants of Paris, but to collect and publish very accurate statistics of the relative quality of each kind of material sold from year to year, and its wholesale market value as distributed to retailers and consumers throughout the city.

It is estimated that about 80 per cent of the food products brought into Paris pass through the "halles," the remainder—fruits, vegetables, etc.—are brought by the green grocers and small market men who have their own gardens and other sources of supply in the country and bring in such products in their own carts, which pass the gates during the night and early morning. The statistics for 1905, which have just been made public, show that there were sold during the year at the Paris markets the following quantities of food materials, the

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values given including in each class the octroi tax which is assessed upon edible products which enter the city:

Articles.	Metric tons.	Value.
Meats	50,886	$15,617,242
Poultry and game	28,941	10,341,211
Fish, sea	39,109	4,167,311
Fish, fresh-water	2,170	
Crabs	209	983,839
Snails	697	
Mussels	9,930	931,822
Oysters.....hundreds..	376,922	17,226
Fruits and vegetables.....tons..	14,857	2,603,220
Eggs.....dozens..	26,724,012	5,577,180
Butter.....tons..	13,857	7,920,893
Cheese.....do....	12,991	2,986,059

These products were almost exclusively of French origin and do not include wines, breadstuffs, coffee, or canned and salted meats, the last three of which are the only articles of general consumption of which the United States furnish a portion of the French supply. The chief characteristic of the Paris market is the abundance and excellence of its vegetables and small fruits, which are mainly grown in the neighborhood of the city upon gardens, orchards, and truck farms which are enriched with sewage and artificial fertilizers and worked up to the highest standard of intensive cultivation.

MATCH MONOPOLY.

GOVERNMENT OPERATIONS AND THE RESULTS.

Consul A. Gaulin writes from Havre concerning the manufacture of matches in France. He says:

According to statistics recently published by the minister of finance the total receipts of the match monopoly in France during 1904 amounted to $6,834,120. The profits were $5,034,355. Official estimates for 1905 give the receipts as amounting to $6,851,180, with the profits slightly in excess of those of the preceding year. The average consumption per capita in 1904 was 1,006 matches, representing an individual outlay of 20.6 cents. Wax matches came in for less than 4 per cent of the quantity sold. The exports figured for only $501.41.

There are six match factories, all owned and operated by the State. They employ 750 men and 1,429 women. The wages paid to the operatives per day of ten hours average $1.27 for the men and 96½ cents for the women, which is practically double the average wages received by women in France. A pension is paid to those having attained 60 years of age. Free medical treatment is provided for all employees.

It has been figured that it cost the French Government at least $34.74 to manufacture a million matches of the cheapest kind. That is held to be excessive. At any rate it does not compare well with the results obtained by private industries in other countries. It is a fact that the French factories have repeatedly been supplied with foreign matches at a price under $27 per million. This has led to several attacks

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on the management of these establishments. The latest one was made in the Senate on November 14, last, by Mr. Antonin Dubost who is now president of that body and who was then the chairman of the finance committee. He criticised severely what he termed "the anti-commercial character of nearly all State establishments," and after having referred to the difference in the cost of production under State and private management concluded as follows:

I long ago stated on this floor that our State industries are a cause of ruin for the treasury. I say now that it is our duty to change our course and to turn over to free industries and free commerce the largest share of the production of our State industries.

The profits of the match industry are relatively so large that some persons assert that no attempt is made to give the public a fair equivalent for its money. The French matches are of such poor quality that they have become one of the jokes of the country. Moreover, the importation of foreign matches being the sole prerogative of the Government, very few are placed on the market. This monopoly being in the nature of a tax has been accepted good-naturedly ever since its establishment, in 1872.

MECHANICALLY BLOWN GLASS.

FRENCH MACHINE-MADE BOTTLES PRODUCED CHEAPLY.

Consul George H. Jackson makes the following report from La Rochelle on the extending machine manufacture of bottles in France:

In the year 1892 Claude Boucher was forced to close the doors of his bottle factory at Cognac on account of continuous strikes and exactions of his employees. He then set himself to invent a machine for the manufacture of bottles which would permit him to resume the industry without having to depend upon the human blower. After years of effort he succeeded in inventing a machine which rests upon an oblong pedestal and consists of a primary mold in which the shape of the bottle is roughly made, of a cup-shaped mold which permits a part of the glass which it contains to solidify, a finishing mold, a mold for the neck and mouth, a pipe bringing compressed air to the latter mold, and various levers which permit the opening and closing of these molds, for opening the valve which supplies the compressed air. The reservoir for the latter is placed some distance away, and is sufficiently large to supply several machines, in one instance as many as twenty.

METHODS OF OPERATING.

The liquid glass is transferred from the furnace to the machine in the same manner as formerly by a blower. When a sufficient quantity of the molten glass has fallen into the measuring mold the operator cuts the rope of liquid glass with shears. He immediately applies the compressor and permits the compressed air to exercise its pressure from above, which causes the liquid to descend into the neck of the mold, forming at once the mouth and neck of the botttle. Immediately he reverses this mold, permitting the rest of the liquid mass to flow away from the parts already formed; then opens the mold and the

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bottle is seen suspended by the mouth and the upper part of the neck alone; the glass still being very liquid elongates, and by contact with the oxygen in the open air a sort of spontaneous combustion is produced, which gives to the glass its brilliancy. When this primitive bottle, bag-like in appearance, has elongated sufficiently it is inclosed in the various molds necessary to give the desired consistency to the lower part of the bottle, where the temperature of the glass is considerably higher than in the upper part. It is here that the cup mold comes into play and compressed air under weak pressure is introduced. Finally the bottle is inclosed in the finishing mold, where the strongest air pressure is permitted to play in its cavity and presses the liquid glass against the walls of the mold with such force as to smooth out all unevenness or roughness on the surface.

GREAT PRODUCTION RESULTS.

The distribution of the air to all parts of the interior is such that the bottle's thickness is practically uniform in every part of its body. The bottom is next shaped, and the newly manufactured bottle, perfect in form, is put away in a furnace to be cooled under conditions which will produce in the glass the greatest possible tensile strength. For more than seven years this machine has been in operation, and it has already passed out of the realm of the experimental into that of the practical; and I recently visited the factory of Mr. Boucher, at Cognac, where he has twenty machines in operation. The furnace which supplies them contains 300 tons of molten glass. They are capable of producing from 35,000 to 36,000 bottles in twenty-four hours; i. e., each machine can produce 1,800 bottles in twenty-four hours, and each workman during his eight hours of labor produces 600 bottles. The surface under cover is more than 4,000 square yards, and the largest number of bottles produced in any one month has been over 800,000.

Martell & Co., one of the largest cognac houses, uses 3,000,000 of these machine-made bottles every year from this factory. In different parts of France the daily production of bottles by these machines amounts to 250,000 bottles, while in foreign countries the quantity is slightly in excess.

ECONOMY EFFECTED AND SUPERIOR PRODUCT.

The advantages claimed for this system are as follows:

1. The question of strikes has ceased to be a bugbear to the manufacturer; the operation of the machine is so simple that inexperienced men are thoroughly competent at the end of a week.

2. The great economy in the production of bottles, which is from 60 to 70 per cent less in cost than by the old method of blowing by mouth.

3. The bottles are better made, the glass being more evenly distributed in various parts. From actual experience it was found that bottles weighing 700 grams produced in Spain by this machine showed an average resistance of 23 kilos 600 centigrams per square centimeter, while bottles of the same form and weight produced at the same time from the same glass by chosen blowers only showed resistance of 20 kilos 300 grams. In a brandy house in Cognac it was estimated that

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there was formerly a loss of 30 bottles per 1,000 by breakage of mouth-blown bottles; by the mechanically blown bottles the number is less than 3 per 1,000.

4. Besides greater strength the bottle has a perfect regularity of form and capacity, qualities which are lacking with the ordinary method. It has been found, in fact, that the Boucher-process bottles do not vary in capacity more than 3 centiliters.

5. A notable advantage is sanitary and hygienic. The mortality of glass blowers from tuberculosis is recognized to be very great, while as a means of transmitting syphilis and other contagious diseases the passing of blowers' pipes from mouth to mouth was most effective. Further, there are certain diseases of the chest which may be attributed directly to glass blowing when found in men of the trade. It would appear from what I have seen and learned that the production of bottles, flasks, etc., will be more and more effected by mechanical means.

VINEYARD PROTECTION.

CANNON AND BOMBS FOR PREVENTING HAIL.

In reply to inquiries from Nebraska Consul John C. Covert, of Lyon, supplements former reports on the subject of using cannon to dissipate hail storms in the vineyard section of France by the following:

The agricultural bureau of Lyon described to me the most popular cannon in use in the wine-growing districts, which requires about 1½ ounces of powder for a charge. The cannon are placed about 1,500 feet apart. Each one will cover about 60 acres of land. A park of 150 cannon is necessary to protect a vineyard against a local or a general storm. The work of the two first rows of cannon soon dislocates a storm and the succeeding cannon prevent the re-forming of the clouds.

Since the cannon have been in use in France the conviction of their absolute efficacy has steadily grown among the wine growers who have used them. New societies for their use are being constantly organized, and the most intelligent among the farmers of France have not the slightest doubt of their power to protect them against the dreaded enemy to their crops.

In some parts of France an effort has been made to introduce the use of bombs, which are thrown high into the air and are intended to explode among the clouds. The only obstacle to the success of this plan is the difficulty to measure the exact distance of the clouds from the earth and to have the bombs explode in the right place. In the use of the cannon the wreath of smoke starts upward from the mouth of the gun and moves with great force until it reaches the cloud, which it dislocates or breaks into shreds, and prevents the formation of hail.

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BELGIUM.

SALES METHODS.

AMERICAN GOODS ENTERING THE KINGDOM.

Consul J. C. McNally, writing from Liege, states that he is frequently asked by Belgian manufacturers as to the probability of a reduction in the American tariff touching the articles they are now shipping to the United States. The consul continues:

They are elated with the merest rumor of a reduction, and it would not have to be a substantial one to permit them to stock the American markets with their products made by employees working at a moiety of American wages. The head roller in a Belgian steel or iron works never receives over $2.25 per day, while the other roll hands average 75 cents. Puddlers average $1, and heaters $1.25.

While Belgium exports her manufactured articles, the country largely imports those for home consumption. Cheapness of the article is the factor in many lines; others disregard the cost for the better article. To the latter class the American article always appeals if it can be found in the market. There are many avenues through which the American exporter could successfully enter the Belgian market, but it can not be done through the catalogue system, the reading matter of which is in English, even if the same is enlivened with highly finished photographic views.

WOULD RATHER SEE THE GOODS.

For three years past I have kept catalogues on file, and upon receipt of new ones have distributed those on hand to firms in a position to buy our exports. They were received with an air of indifference, and the invariable remark would be, "I would rather see the goods than the picture," or "I would like to have a sample of the goods." During the above period I have only had one inquiry for a catalogue, and that was in the matter of shoes. Competition is too keen to expect purchasers to buy from catalogue or through long-distance correspondence unless they have had an opportunity to examine the goods beforehand. Men and goods on the ground is the winning plan. American machinery here is well represented and numerous varieties can be seen in operation, which I am informed influences many sales.

One idea that occupies the mind of the foreign importer that must be removed is that the American manufacturer will invariably send in the first and possibly the second consignment according to order, but after that the inferior quality can be expected. This spirit of distrust is emphatically manifest, and whether merited or not it stands as a barrier against the system of drawing against a bill of lading before the goods arrive. Even the system of forwarding samples is frowned upon because of this very suspicion, and two dealers in Liege claim to have had an experience where the samples were only used to influence confidence, after which the goods were much inferior. Belgium imports most of her food stuffs, and a good market awaits American products if they are properly introduced.

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THE HEINZ PITTSBURG METHOD.

The mere shipping in of an article without the proper advertisement will result badly, but with the same energy displayed that is used at home to get it before the public would show a different result. The 57-variety brand of pickles, etc., made an interesting display at the recent Liege exhibition, and although made in the British section, the usual American push was everywhere manifest. The proof of the article was the eating thereof, so the Belgian people tasted, and the goods are now well known and firmly established in this market. It would seem as though our excellent canned fruits ought to prove ready sellers here as well as other American canned products, but only after the proper method is taken to bring them before the people. This can be said of any article shipped into foreign markets.

FIREARM COMPETITION—LABOR-SAVING DEVICES.

The present year registers a considerable falling off in the American orders for firearms for which Liege is renowned. The cheaper grade of guns formed nearly all the shipments, the duty on the higher grade being deemed prohibitive. The Belgian manufacturers are troubled lest the time has come when their cheap variety of firearm, built at a low cost on account of the piecework prices and the facility for obtaining raw materials, are successfully met by the American manufacturers even under the handicap of a high wage. This is true of every article that enters the United States, and, while in some the American competition can not yet meet them, the time will surely come when the same condition that at present controls the firearm manufacture will confront them. While the American market is closing to this industry, those of other parts of the world welcome the Belgian product, so that even with the falling off of American orders the aggregate exportation it is said will surpass that of 1905.

European commercial and industrial fields offer special inducements to labor-saving devices that carry with them the American stamp of success. Manufacturers abroad are alive to economical contrivances, and as eager to take advantage of new creations as are our own. In coming abroad American representatives must not present their articles or ideas before carefully studying conditions and the character of the people with whom they hope to do business. Much is lost by a confident and exultant attitude, and such will oftentimes be resented as an attempt to assume a knowledge of what the manufacturer wants better than himself. Concerning mechanical devices, while an explanation of the merits will be welcome, the article itself is the best persuader, and the demonstrator, backed by his working argument, can win customers.

CANNED GOODS.

FRENCH CONTROL THE MARKETS.

Consul McNally also writes relative to the canned-goods industry in Belgium, stating that while the French dealers control the market in assorted canned articles, the American product is extensively sold and with a little more energy would eventually predominate.

The latest statistics at hand, being for 1904, show that the aggregate imports in canned meats were 7,118,292 pounds, of which 6,256,797

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pounds were consumed in the country and to which latter quantity the United States contributed 1,061,717 pounds. The duty on canned game and fowl is $5.79 per 100 kilos (220 pounds). Meats simply prepared are admitted free, while meats otherwise prepared carry a duty of $2.90 per 220 pounds. Imported otherwise than in cans and prepared in liquids of an alcoholic nature carry an excise tax apart from the duty on the meats. Imported otherwise than in cans and prepared with nonalcoholic liquids or substances are admitted free.

MEATS NOT CANNED.

Hams, bacon, ox tongue, salted and smoked meats, etc., come in free of duty. The total imports into Belgium in 1904 were 27,399,887 pounds, of which 24,262,612 pounds were consumed in the country. The imports from the United States reached 21,034,174 pounds. It would seem that the American hams and bacons would find a ready sale in the Belgian market. The English dealers have established shops in the larger cities of Belgium and sell the York and Wiltshire brands, both cooked and raw, in enormous quantities. These dealers will not slice a York ham or sell other than the whole unless it be cooked and then at a high price per kilo of about 2½ pounds. The Wiltshire can be bought in any quantity. The ham termed the "Ardennes" is considered the best native ham.

Following are the prices of hams and bacon sold in Liege: York ham raw and in the whole piece, 64 cents a kilo; York ham cooked per kilo, $1.16; Wiltshire ham (raw) and bacon, 53 cents a kilo; the German hams (Westphalia), 53 cents a kilo; the Ardennes hams 49 cents a kilo. The cooked ham trade seems to be particularly good.

BRIQUETTES AS FUEL FOR LOCOMOTIVES.

Consul McNally further reports that it is interesting to note the continued increase in the use of briquettes on the Belgian State railways which were introduced in 1898. For that year the consumption was 208 tons; in 1899, 3,900 tons; 1900, 20,472 tons; 1901, 67,755 tons; 1902, 110,600 tons; 1903, 152,219 tons, and in 1904, 205,175 tons. It will be seen that the consumption in 1904 was 1,000 times greater than in 1898, the first year of their use.

MARKETING POULTRY.

AN EXTENDING TRADE IN FANCY CHICKENS AT FANCY PRICES.

Consul-General G. W. Roosevelt, at Brussels, reports that poultry raising, which has long been practiced in Belgium as an industry restricted to home requirements, has during the past few years taken on a more important and extended character, and to-day is rated as one of the most profitable industries of the country. Mr. Roosevelt continues:

The high reputation and increasing international demand for the poultry known on continental markets as the "poulet de Bruxelles" (Brussels chickens) is the cause of this extending business. There are no official statistics recording the importance of the poultry industry

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in this country, but, according to an estimate made by breeders in this district, 2,000,000 fat chickens, representing a value of $1,351,000 to $1,544,000, are annually sold on the Brussels market alone.

Large quantities of fowls from this and other districts of Belgium are yearly exported to various large cities in Russia, Germany, Austria, France, and England. The "poulet de Bruxelles," which is well covered with fat and flesh, is highly esteemed, and sells readily on the markets of continental cities at good prices. The breed par excellence for the table is the "Coucou de Malines."

Ground buckwheat mixed with milk, forming a rather stiff paste, is fed twice daily to the fowls. At noon they are given milk or milk diluted with water. In winter the feed is varied by a warm mixture consisting of potatoes, barley, and wheat.

ITALY.

TRADE EXPANDING.

PERSISTENT EFFORTS TO ENCOURAGE ENTERPRISE.

Consul J. E. Dunning, of Milan, reports that Italy has begun to devise means by which closer trade relations with foreign countries, especially with Mexico and South America, will be established. The plan is to found colonies, establish banks, and provide transportation facilities on lines similar to the German idea. On the subject the consul says:

Italian capital, rapidly becoming too abundant to be entirely occupied at home, is beginning to seek new avenues of trade, and this effort is being directed particularly toward Mexico and South America. The question of more and larger establishments of Italian institutions, especially banks and chambers of commerce, in Mexico is engaging the attention of the Kingdom's foremost business men. At this time the plan has gone no further than a discussion of colonization systems founded on lines similar to the German idea, and the establishment of banks and all-Italian transportation lines.

The Navigazione Generale Italiana Steamship Line has under contract four large steamers for the Genoa-Naples-New York service, of the latest design, elegantly fitted, and equipped with engines intended to reduce the time between New York and the Mediterranean ports by several days. These ships will not only enter the freight and passenger trade, but will release for service between Italy and South America half a dozen steamers of smaller size now on the New York line of this company. The Frank Zotti Steamship Company has been organized under the laws of the State of Maine to carry on a freight and passenger service between Genoa and New York.

WATER POWER.

EXTENDED USE BY MEANS OF ELECTRICITY IN MILAN DISTRICT.

Writing on the water power of northern Italy, Consul Dunning tells how the changing aspect of fuel supply and its relation to industrial

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development is turning to the advantage of Lombardy and Milan. He says:

As receding coal supply bears its constantly intensifying influence upon industrial development, the water power of north Italy begins to take its place as one of the main assets of the Kingdom. In the last annual issued from the Milan consulate I referred to Italian water supply in general as the probable corner stone of the new industrial structure which will be built along the peninsula. Of comparatively recent origin, the subject ought to appeal specially to American manufacturers, since it is bound to be through application of the vast store of water in the north Italian mountain ranges that our competitors here will be able to meet us on what will be more than equal terms if American mills continue to be dominated by that "King Coal" which was recently referred to before an association of New England cotton manufacturers as the controlling element in the present situation. In the Italian cotton trade, for instance, the fuel problem, which is rapidly advancing to a serious stage throughout Europe, is rendered scarcely of moment through the rapid development of electrical energy generated by water power in the not far distant hills. All the newer cotton mills are run electrically, and many of the older ones are to be reequipped with the same system to take the place of their steam plants. The outlook of the Milan cotton manufacturer upon the future is not clouded by any doubts of his ability to compete with the mills of other countries on the score of power cost.

NOT TO DISTURB IRRIGATION.

One of the problems connected with the more extended use of water supply in northern Italy has been dictated by the danger that too much of the natural flow might be made use of to the detriment of the inhabitants of the upper valleys, who need a considerable amount for irrigation. This difficulty has been avoided by a storage system, which appears to be working out successfully, and by means of which all interests seem to be cared for equally. One of these reservoir groups was established in 1889, on the river Gorzente, where were built two storage basins, with a combined capacity of 5,750,000 cubic meters of water, to supply the city of Genoa with water and electric power. The company has resolved to reequip its works and bring them up to date—to produce a total available power supply of 6,000 horsepower.

Another company, which is exploiting the water supply of the Apennines, has established plants at four points in that range. One of these stations will supply electrical power to Spezia, the principal military port and maritime arsenal of Italy, and the other three will be used to transmit electrical power into Genoa. These three stations have a capacity of 28,000 horsepower, and the storage reservoirs for water have a combined capacity of more than 30,000,000 cubic meters.

THE GOVERNMENT DEEPLY INTERESTED.

Impetus has been given to water-power studies and electrical transmission by the news that the Italian Government, under the direction of the King, whose interest in such practical enterprises is notably keen, will invite the two great railway lines, Ferrovie Mediterraneo

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and Ferrovie Medidionali, to devote a large part of 1907 to the question of electrical traction and to take up various projects for trials on a large scale. On the line of the Meditteraneo there has been tried a third-rail system for use in the service between Milan and lakes Maggiore and Lugano. After three years this appears to have given satisfactory results.

In northern Italy nearly all the small cities and a large number of villages are supplied with electric light, while many of them have installations of hydro-electrical power. Among the cities of from 10,000 to 50,000 inhabitants so equipped are Vercelli, Novara, Pavia, Bergamo, Brescia, Verona, Voghera, Alexandria, Mantua, Vicenza, and Intra, many of them being in the Milan consular district and being prominently known for the importance of their manufactures and for their extensive contributions to the total of exports invoiced through this consulate. Hydro-electrical installations have played a strong part in the commercial advancement of these thriving towns.

The city of Como, one of the principal silk centers of Europe, draws its electrical lights and power from a station near Porlezza, on the Lake of Lugano, through a wire line 27 miles long and at a tension of 2,000 volts. The station includes a canal and tunnels 11,000 feet in length, by which is utilized a typical mountain torrent with a fall of 835 feet. The station contains 5 groups of generators.

The town of Lecco, one of the highly important tributaries of the Milan consulate on account of its extensive manufactories of cheese, takes its electrical light and power from a water power 14 miles distant.

SMALL FACTORIES FAVORED.

The installation at Verona is slightly different from these others, in that in that city there exists a canal for industrial purposes with a fall of about 35 feet, which supplies a considerable number of factories. A part of the power in this canal is utilized to generate a triphase current at a tension of 3,000 volts, supplying about 1,000 horsepower, which is distributed to small industries in the city at an average consumption of 35 horsepower each. Conditions at Vercelli, Novara, and Pavia, all commercial centers of tributary importance to Milan, are closely analagous to those at Verona.

The city of Brescia, 67,000 inhabitants, in the upper Lombard district, is served by two hydro-electrical installations, and a third will soon be put into operation and will embody the latest inventions and appliances for this sort of work. The station is at Ponte Caffaro, in the Giudicaria Valley, where there is obtained a fall of nearly 850 feet of water. About 10,000 horsepower will be supplied from this station.

Bergamo, another of Lombardy's most enterprising small cities' directly connected with the commerce of Milan, has several small stations which take advantage of water powers in that vicinity, giving the city a total of 3,500 horsepower for industrial uses, transmitted in triphase currents at 7,000 volts.

GROUPS OF VILLAGES SUPPLIED.

Apart from these installations, which serve the smaller cities, there are a number of others in northern Italy which supply electrical power to groups of villages spread over a territory more or less extended. Throughout Lombardy important manufactures are depending more and more upon electrical transmission for their power, and anything

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like a complete list would be a very long one. One of the most interesting plants is at Gromo, noted in Europe as the first in Italy to use a current of 40,000 volts. The wire line supplies the Crespi textile mills at Nembro. Numerous others might be cited—the great textile mills at Schio, Melegnano, Novara, Salo, Udine, and so on, are all operated in this way, and every year sees electrical transmission developing toward the point where all the rich country centering on Milan will be reasonably independent of receding coal supply and the increasing high cost of fuel.

Of vital moment in any complete consideration of the water powers of northern Italy as related to the industrial development of Milan is the plan now well on foot to add 40,000 horsepower to the available motor power which can be drawn upon by manufactories in the city. This plan comprehends the use of the waters of the Adda River, which leaves the lake of Lecco at Lecco City.

BIG CHERRY CROP.

LARGE EXPORTS OF PRESERVED FRUITS TO LATIN AMERICA.

Consul Dunning, responding to an inquiry, also reports that no cherries, either in brine or in spirits, have been shipped from that district to the United States in recent years. He writes:

Though the cherry crop of Italy is heavy and the packing industry extensive the larger part of the output for export goes to Central and South America, which market takes the entire product of Lombardy in this line. By the Italian processes, cherries to be packed in spirits are brought to the factory and cleaned by women. They are then subjected to the sulphur bath to preserve their color, and are afterwards passed through three alcohol baths in which the strength of the fluid is increased from the 30 to the 60 grade. The entire process of preparation consumes nearly forty-five days. Male labor is employed throughout after the cleaning process at wages approximating 40 cents a day. When bottled for shipment the cherries sell at about 27 cents per pound.

Preserved or candied cherries take the sulphur bath, are then stoned, cooked in sugared water, to which sweetening is gradually added, and are then left for two or three days in the basins until the sugar slightly ferments. They are then boiled again in water in which the proportion of sugar is increased, and on finishing are either sold for candied cherries or are bottled in a heavy sirup. Women do the cleaning and pick the stones, men the rest. Such cherries invoice at about 35 cents per pound. The best cherries are raised in Salerno, in the consular district of Naples. The second quality are produced in great numbers in the provinces of Brescia and Bergamo, in the consular district of Milan.

MANUFACTURING THRIFT.

OUTPUT OF INDUSTRIAL ESTABLISHMENTS.

Consul-General Hector de Castro furnishes from Rome the statistics of production of Italian distilleries for the last half of the year 1905, as follows:

There are 21 first-class and 2,010 second-class distilleries which gave a total production of 2,793,368 gallons, showing a decrease of 345,550

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gallons on the corresponding period of the preceding year. The 93 breweries produced 2,235,769 gallons, an increase of 453,920 gallons on the first period, 1904–5. The 278 aerated water establishments yielded a total production of 361,624 gallons, a decrease on the preceding period of 24,000 gallons. The 22 chicory and similar establishments showed a production of 3,700,100 pounds, an increase of 240,000 pounds on the preceding period. The 10 glucose factories yielded 205,500 pounds of solid product and 4,867,000 pounds of liquid, an increase of 90,700 and 572,000 pounds, respectively. The 32 sugar refineries of the Kingdom have yielded 184,300,000 pounds of second-class and 32,600,000 pounds of first-quality sugar, an increase of 33,400,000 pounds for the second quality and a decrease of 1,500 pounds for the first. The total excise tax collected was $12,480,840, with an increase of $2,239,048 on the preceding period. The amount of mineral oil products extracted by the 28 oil refineries using Italian raw material was 6,890,000 pounds, with an increase of 2,880,000 pounds, besides about 14,000 pounds of products not subjected to taxation, a considerable increase on last period. The oil refineries using imported raw material produced 10,289,000 pounds, or 9,650,000 increase on the preceding period.

There are 786 factories producing explosives, the output being 2,400,000 pounds of gunpowder and 110,500 pounds of other explosives—much higher figures than last year. The 188 match factories produced 20,637,718,000 wooden sulphur matches, 12,014,506,000 wax and ordinary wooden matches, and 7,118,000 vestas, all of which figures are much higher than last year. The amount of gas and electricity produced by the 228 gas works and 5,086 electric plants was, for gas, 74,271,628 cubic meters extracted from coal and 1,419 from mineral oil; for electricity, 132,126,051 kilowatts.

The total amount of revenue collected from the various establishments was over $19,000,000.

MUNICIPAL WINE MAKING.

EXPERIMENT OF PUBLIC COOPERATION IN BUSINESS.

Consul J. J. Roche reports from Genoa that the laws for the municipal control of public-service utilities were adopted in 1903 by Italy, but the first attempt has just been made to put them into practical operation by the following experiment:

On April 29 the little commune of Canneto Pavese, near Pavia in Lombardy, voted almost unanimously by referendum on the question of putting their business of wine making under a common management. Not only was this the first experiment in that function, but it was also an experiment not at all contemplated by the framers of the laws. But Canneto is a community without any diversity of occupations. It has 3,014 inhabitants, practically all engaged in wine making. Signor Giovanni Marchese, who has made an unprejudiced study of the subject, says:

"The conditions of the wine trade have been growing worse, being monopolized by a few merchants who dictate a lion's terms to the small proprietors, which the latter, not having wine cellars, are forced to accept; and the dealers do not always sell the genuine product,

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mixing it with lower grades, so that the grape and the wine of Canneto Pavese, of deservedly high value, are losing reputation and price. The vineyardists, in the great majority, have neither the capacity nor the means to rectify the condition. The communal administration of Canneto sees in this a grave danger, the diminution of rentals or incomes and the injury of the economic conditions of the inhabitants, and thinks that what can not be done by individuals should be done collectively. Thus it finds that the intervention of the municipality not only should be evident but is a typical case of needed municipalization, and that is why, interpreting the spirit of the laws, it believed itself authorized to initiate the communal wine cellars for the manufacture of wine.

SHARE OF PROFITS.

Of the net profit, 88 per cent goes to the producers, 10 per cent constitutes a reserve fund for the year's contingent loss, and 2 per cent goes to the commune. Should there be a loss for which there is not sufficient reserve fund, the amount is debitable to the commune, which will allow it on its accounts. The administration of the communal winery is autonomous—independent of the communal council—and the undertaking, instead of being an incumbrance, may, on the contrary, be of possible advantage to the communal funds. Not all the producers are obliged to carry their grapes to the communal winery. But even those who do not make use of it will feel an indirect advantage, because when the market is cleared of the poor dealer who must sell at any cost the prices will be better sustained for the benefit of all, including those who hold off from making sales.

OLIVE CROP.

GOOD OIL YIELD FOR PRESENT SEASON IN TUSCANY.

Consul James A. Smith, writing from Leghorn, says that the new olive-oil output in that part of Italy is exceptionally good. His letter reads:

It has been stated upon reliable authority that about two and a quarter million acres of land in Italy are devoted to the cultivation of the olive. The yield, according to official statistics for 1900, was 53,000,000 gallons; for 1901, 96,800,000; for 1902, 54,000,000, and for 1903, 95,000,000 gallons. No figures are available to show the yield for 1904, and the 1905 crop is as yet not all gathered. Without considering the considerable quantity of oil imported from Spain, France, Tunis, and other countries, which averages from 25,000,000 to 30,000,000 gallons annually, by far the larger portion of the home production is consumed in Italy. In the United States olive oil is used mainly as a dressing for salad, etc., but in Italy it serves not only as a condiment, but as a primary article of food, as a substitute for butter, lard, and other fats for cooking, and, especially in the southern provinces, Sicily, etc., for lighting purposes. Italy finds the best market for her olive oil in the United States. The following table

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gives the total exports, by gallons, for the past three years to the various countries:

Countries.	1903.	1904.	1905.
Austria-Hungary	765,624	983,521	752,448
France	1,412,550	2,164,825	1,260,854
Germany	464,593	758,016	482,374
Great Britain	960,084	926,620	766,236
Holland	798,739	740,934	308,844
Russia	847,886	909,159	900,501
Switzerland	360,080	442,759	367,407
United States	2,700,709	3,343,447	2,714,390
Central and South America	2,244,405	2,929,721	2,195,490
Other countries	493,099	880,475	592,677
Total	11,047,769	14,079,477	10,341,221

ALLEGED ADULTERATION.

Much has been said and written as to the adulteration of Italian olive oil with cotton-seed, peanut, and sesame oils; but I am inclined to think, after careful inquiry, that the statements, so far as that portion of Italian oil which is exported is concerned, have been a good deal exaggerated. That the blending of high with low grade oils to produce certain types, and an oil which can be sold at a comparatively low price, is practiced, there can be no question. It is more than probable, however, that much of the oil adulterated with seed oils is not exported but consumed at home. Especially is this true when the crop is a failure and the poorer class can not afford to pay for the pure product, olive oil being for them an article of necessity rather than luxury. So far as exports to the United States are concerned, with the strict enforcement of our pure-food law the Italian exporter can not afford to send an adulterated oil to America, knowing as he well does that it must be chemically analyzed and will be refused admittance if found to be adulterated.

FINE OIL CROP, PRICES LOWER.

Olive oil forms the chief article of export from this district. The crushing and pressing, which in some years commences in November or December, began later this season (1905–6), and operations were not in full swing until the middle of January. In the second week of May the last olives were being gathered, and the making of the oil was completed within the month. The results have been eminently favorable, a good crop has been secured, and the oil produced is of good quality owing to the sound condition of the fruit. A favorable circumstance in this respect has been the entire absence of that most dreaded enemy of the olive grower, the olive fly (*Mosca oleae*). In former years a splendid croph as often at the last moment been absolutely ruined by the ravages of this insect. It is difficult to account for the disappearance of the pest, as no steps were taken by the olive growers to cope with it when, in past years, it infested nearly all the chief growing districts. It can only be surmised that the very cold weather experienced in Tuscany two winters back which, contrasted with the preceding very mild winters, must have had the effect of killing off the fly or its grubs.

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In the absence of statistics at this date, it is estimated that the oil crop throughout Tuscany this season will aggregate about 5,000,000 gallons, probably more than less. There has been a constant and brisk demand for the new season's oil, owing partly to its fine quality and to the moderate prices which have prevailed, showing a reduction of about 15 per cent in the average on last year's values, and partly to the depletion of stocks.

CODFISH.

OPENING FOR AMERICAN FISH.

Consul Smith, replying to inquiries from Gloucester, Mass., regarding opportunities for supplying Italian markets with American salted fish, writes as follows:

Italy imported during 1905, an average year, salted and dried cod (stockfish) to the value of something over $5,000,000. The imports of salted herring were about $350,000. The imports of codfish at Leghorn average about 48,000 quintals (4,800 metric tons) annually, and about 40,000 barrels of salted herring are received here each year. The codfish is of the Labrador and Shore cures and is purchased mainly from English and French houses in England, France, and Newfoundland. The herring are bought at Yarmouth, England. Prices this past year have averaged as follows: Codfish, Labrador cure, 17 to 21 shillings ($4.13 to $5.10) per hundredweight; codfish, Shore cure, 26 to 30 shillings ($6.32 to $7.29) per hundredweight; herring, salted and smoked, in barrels of about 150 pounds each, containing about 600 fish, 40 shillings, 13 to 20 shillings per barrel ($3.16 to $4.86); stockfish, 40 shillings per hundredweight ($9.73).

These prices are c. i. f. Leghorn. The Government import duties are 5 lire per 100 kilograms (97 cents per 220 pounds) on dried and salted fish; fish in brine, 6 lire ($1.16) per 100 kilograms. The imports of stockfish and salted cod are about evenly divided. The latter are shipped in bulk and the stockfish in open bales of 110 pounds each. The herring, as already stated, arrive in barrels of 150 pounds, containing about 600 fish.

A prominent dealer informs me that no salted fish is received here through American houses, and no particular effort seems to have been made by our exporters to enter this market. The dealer referred to, Pelice Menicanti, 6 via dell, Angelo, will be glad to be placed in communication with an American house exporting salted and dried fish. If the prices named can be met, there would appear to be no good reason why a part of the trade at least can not be secured. Our brands of boneless cod, packed in wooden boxes of, as I remember, 1, 2, and 5 pounds each, are entirely unknown here. Codfish is consumed in Italy mainly by the poorer classes, because of its cheapness, but I believe if the merits of the boneless article were properly brought to the attention of dealers and the public a very considerable trade would result. This port has direct communication with New York by the steamers of the Anchor Line, with sailings twice to three times each month.

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EXPENSIVE LIVING.

HIGH COST OF NECESSITIES IN SICILY.

Consul B. F. Chase writes from Catania that the popular impression in America that living is cheap in Italy is far from correct if the prices in other parts of the Kingdom are the same as in that city.

The necessities of life from the most ordinary American standpoint are so expensive that even with the American wages the laborers could not buy them, and here, with the wages ranging from 30 to 80 cents per day, it is an absolute impossibility, and the native laborer must live on cheap bread, macaroni, native wine, and fruits. A peculiarity of trade here is that there is no reduction in price for larger quantities; a sack of flour costs at the same rate if bought at one time as if bought by the kilo or fifth of a kilo, and the same is true of all other articles of food. The result is that purchases are always of small quantities and made from day to day. The necessary cost of living each day in the plainest American style is greater than it costs in the usual first-class hotels of America.

The following are the current prices for the most common articles of food and for household use, stated in kilos of 2.2046 pounds or in liters of 1.05668 quarts: Per kilo, flour, 10 cents; sugar (beet), 30 to 34 cents; coffee, $1.20; tea, $3.20; beans, dried, 14 cents; butter, not salted, 98 cents; oatmeal, 40 cents; corn meal, 9 cents; cheese, 60 cents; potatoes, old, 3 cents; new, 5 cents; apples, 10 cents; rice, 14 cents; pease, 14 cents; raisins, 30 cents; figs, 16 cents; dates, 40 cents; almonds, 15 cents; hazlenuts, 18 cents; pumpkin, raw, 4 cents; macaroni, 8 to 12 cents, according to quality; bread, poorest quality, 6 cents; bread, French quality, 15 cents; beef, with bone, 39 cents; beef, without bone, 50 cents; lamb, 30 cents; kid, 30 cents; chicken, 65 cents; bacon, 40 cents; lard, 36 cents; eggs, 30 cents per dozen; oranges, Maltese, 1 cent each; mandarins, in season, 2 for 1 cent; lemons, 4 for 1 cent; strawberries, 35 cents per kilo; per liter, wine, native, 11 cents; olive oil, 30 cents; vinegar, 10 cents; milk (cows'), 12 cents; milk (goats'), 16 cents; kerosene, $2.28 per can of 18½ liters, or about 48 cents per gallon; charcoal, $2.20 per 100 kilos, or 220.46 pounds.

The price of fresh meat is fixed by the sindaco (mayor) by a decree, and there are many particulars in the decree, but the above prices are correct for the best qualities. The general articles of clothing are no cheaper here than in America when quality is considered, and some of them are much dearer.

The contrast between the high price of living and the low rate of wages may explain in a measure why Italy is being depopulated by the thousand. In the first three months of the present year over 60,000 Italians emigrated to the United States alone, while many go to South American countries and to other parts of the world.

SICILY ALMOND CROP.

Consul Chase also writes that before the last of March the prospects were bright for a very good almond crop in Sicily, but the snowfall of

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March 31 and April 2 and the unfavorable winds for several days during April seem to have caused more damage than was at first anticipated. He continues:

Complaints are coming from inland that much of the young fruit is falling from the trees, apparently having been touched by the frost. On the whole, the crop of the provinces of Caltanissetta, Catania, and Syracuse can be estimated so far at about two-thirds of an average crop, or about 50,000 to 55,000 bags of 100 kilos (220.4 pounds) each of shelled almonds, as against about 65,000 bags of like weight for last year. Owing to the heavy damage to the almond crop in France (Provence) caused by frost in March, the prices have been advanced $1.20 to $2 per bag over old crop. Freight to New York is $4.85 to $6 per metric ton (2,204 pounds). The shipments from this district during 1905 were 4,623 metric tons, as against 3,008 tons in 1904 and 5,397 tons in 1903. During the first three months of 1906 there were exported 1,096 tons. The shipment of almonds, chiefly sweet-shelled, to America during 1905 was 615 tons, and for the first three months of 1906, 254 tons.

STOVEPIPE RADIATORS.

VALUABLE SUGGESTION FROM VENICE.

Consul Paul Nash, of Venice, thinks that the devices on the American market for the utilization of the waste heat of stovepipes might be marketed in Italy and writes:

As the arrangements for heating in Venice and throughout Italy are principally stoves, it seems to me that if these American radiators can do what is pretended for them in the economy of fuel, they would be a great success here. I suggest that manufacturers of such contrivances should write to the firms mentioned below and try to introduce their goods. The letters and descriptions should be in Italian, and I particularly refer intending exporters to the report from this consulate, published in Daily Consular Reports for April 12. If it is expected to do any business for the coming winter, no time should be lost in opening negotiations. List of firms: Ing. Colombo Coen, Ponte della Guerra, 5363; Michele Pangrazio, Riva del Carbon, 4789; I. P. Isabella, Via Mazzini, 5114.

It will interest exporters to know that the Austro-American Line, of which Messrs. Phelps Brothers are the New York agents, has tripled its service from New York to Venice since last year, and that it now has an average of five departures from the former port per month, some of them direct for Venice and others via Genoa, Naples, and Palermo. I hope that these added transportation facilities will result in more American goods coming direct to this consular district.

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SPAIN.

AMERICAN GOODS' OPENING.

EXCEPTIONAL OPPORTUNITY FOR THE SALE OF MANY PRODUCTS.

Consul D. R. Birch reports from Malaga that the immediate present offers an exceptional opportunity for the sale of American goods in Spain. The consul writes:

A decided fall in Spanish monetary exchange since the first of the year has given foreign manufacturers a trading advantage in Spain that they have not had for many years. No other event, not even a much desired commercial treaty between the United States and Spain, could give such impetus to the importation of American goods as has this marked appreciation of the currency. Business with American houses is done through the medium of the pound sterling ($4.86 in American currency). A year ago the pound was valued at 35 pesetas (13 cents each in American currency). To-day the pound is worth 29 pesetas (about 16.8 cents each), or 24 per cent less in value. This means that American articles can now be purchased by Spanish buyers at one-fourth less than formerly, and this, too, without reducing the American sales price.

The drop in exchange is not believed by careful observers to be a temporary condition, but rather that it portends a general improvement in the financial affairs of the country, and that later in the year the peseta will almost, if not actually, reach par (19.3 cents).

CLASSES OF GOODS THAT CAN BE SOLD.

Many communications are addressed to this consulate by American manufacturers and exporters seeking a Spanish market. In the past I have replied with regret that local conditions seemed unpropitious for the purchase here of most of the articles mentioned. The same could still be said of perhaps the majority of American wares whose sale was sought in southern Spain, as a serious propaganda would needs be conducted along certain lines before the class of goods mentioned would find ready sale. But considerable business might now be done in certain articles, the importation of which a year ago was out of the question. My judgment is that the following American goods could be sold locally under the existing conditions: Agricultural implements, cereals and "breakfast foods," lard, blotting paper, chemical and toilet supplies, electrical supplies, paints and varnishes, wire fencing, flavoring extracts, and various kinds of novelties.

LARD TWENTY CENTS PER POUND.

Much of the food stuffs come here from other European countries, principally England, and sell in Malaga stores at ridiculously high prices. The lard used locally is from Barcelona, and sells at an equivalent of 20 cents American per pound. This price limits its use to the wealthier classes. I am informed that lard sells retail in most American cities at less than half this sum.

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"Breakfast foods" are as yet unknown, and the only cereals on sale in this city are tapioca and cornstarch. The latter is the product of a New York State establishment. Tapioca comes from both France and England, and sells at 30 cents the 1-pound tin. Vanilla extract comes from England, and is sold at 3 pesetas (now about 50 cents American) for a very small bottle, which could be bought retail in American grocery stores at one-fourth this sum.

Blotting paper, Spanish made, is so very poor that the antiquated system of shot and sand is still much in use. Many toilet articles considered indispensable to American homes are impossible to obtain here. Among these may be mentioned witch-hazel, listerine, bay rum, benzoin, etc.

FAVORABLE FREIGHTING ADVANTAGES.

Another feature favoring the importation of American goods into this section of Spain is the calling here of the Ceballos Line of freight steamers. This line has been operating for nearly two years between New York and Spain, but previously made a north of Spain port the first call out from New York. Recently, however, the amount of cargo for Andalusia has caused a change in the former schedule and the last few steamers of this company have come direct from New York to Malaga. These vessels have brought agricultural and mining machinery, windmills, pumps, tinned meats, paints, and wheat.

IMPORT STIMULUS.

APPRECIATING CURRENCY CAUSES NEW CONDITIONS IN COMMERCE.

Consul-General B. H. Ridgely, of Barcelona, calls attention to the continued tendency of Spanish currency to appreciate in value on the international money exchanges, and in consequence to the better possibilities of importing foreign products into Spain.

During all the years from 1894 to 1905 inclusive Spanish currency was depreciated at an average of about 33⅓ per cent. For example, the Spanish peseta, worth nominally 19.3 American cents, had only a gold value during all those years of about 13½ cents. This helped largely to develop Spanish exportation, for the reason that while all the local cost of production was paid at home in the depreciated currency of the country the exported products were sold abroad in gold. This enabled Spain to produce very cheaply and to keep Germany, England, and other countries not only out of her colonial markets—particularly for cheap cotton goods of all sorts—but it also helped her to maintain and largely develop her trade for these same products in Central and South American countries. But if these conditions stimulated exportation they made the importation of many products virtually impossible for the reason that the buying value of the depreciated Spanish peseta in foreign markets was so relatively small. A year ago the Spanish peseta was depreciated at 32.10 per cent; now at only 7 per cent. This is the greatest relative value Spanish currency has enjoyed for 15 years, and it is clearly approaching par. Just what the results will be can not yet be foreseen, but it seems certain that importation will be stimulated.

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BENEFIT TO AMERICAN PRODUCTS.

Among other American products it appears that wheat can now be sold in Spain to some extent, and already certain intending wheat importers have been put in communicaton through this office with American exporters. On the other hand, as above stated, Spanish exportation is likely to be very unfavorably affected, and this is already being felt in the matter of the exportation of cotton goods, shoes, wrapping paper, and alimentary products to Porto Rico and the Philippines.

None the less, in spite of these conditions, the first three months of 1906, as compared with the same three months of 1905 and 1904, show a considerable increase, not only in importation but also exportation. It is not likely, however, judging from the present outlook, that the increase in exportation will be maintained, and in this connection it may be stated, for the advice of American exporters of cheap cotton undershirts, shoes, and cotton stuffs, that these goods form the staple of manufactured products exported from Spain to the Philippines, and that they will all be unfavorably affected by the appreciation of the Spanish currency. American manufacturers of the above-named products might therefore look with renewed interest to the Philippine market.

Spain's commerce for the first three months of 1906 totaled as follows for imports: Raw materials, 109,483,070 pesetas; manufactured articles, 53,105,346 pesetas; and alimentary substances, 78,268,285 pesetas.

The exports were: Raw materials, 94,021,602 pesetas; manufactured articles, 49,372,238 pesetas; and alimentary substances, 76,959,638 pesetas.

COFFEE DECEPTION.

PORTO RICAN ARTICLE WRONGFULLY IMPOSED UPON.

Consul-General Ridgely writes furthermore that he was recently shown a newspaper article reprinted from a Porto Rican journal which undertook to expose a fraudulent trade which it is alleged is being carried on from Barcelona, whereby inferior qualities of coffee are being shipped as kidney beans to Cuba, and there sold as Porto Rican coffee, thereby seriously discrediting the latter in the Cuban market. Mr. Ridgely continues:

It calls upon Porto Rican residents in Barcelona to discover the authors of this fraud, from patriotic motives, and also upon honest Catalans to lay their hands upon the swindlers. In this connection I am in receipt of the following letter from a Porto Rican merchant temporarily residing here, and who is taking an earnest and energetic interest in the matter:

In accordance with your request, I herewith have the honor of sending you a copy of the article I took the liberty of drawing your attention to, which appeared under the heading of "A fraud" in La Correspondencia de Puerto Rico, on March 27, and in which a supposed irregularity in the imports of coffee into Cuba is exposed.

Besides this question, which is of paramount importance to the people of Porto Rico, I take the liberty of bringing to your notice another fact connected with that island's coffee, which not only perpetrates a swindle on all coffee consumers in Spain, but entails an injury to the well-deserved reputation held by Porto Rican coffee in all

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the markets of the world, especially those of Europe. Spain was always one of the best markets for Porto Rican coffee, and in 1897, the last year of Spanish rule in that colony, the largest exports of coffee to any one country were those made to Spain, the total exports being 51,097,824 pounds, of which 14,829,334 pounds were shipped during that year to Spain. Although the change in government since 1898 was bound to seriously interfere with the trade relations between Porto Rico and Spain, it was not sufficient to account for the decrease in the imports of coffee into the market, if we bear in mind the high esteem in which it is held, owing to the superiority of its quality over the majority of other coffees. The favor it enjoys is proved by the fact that throughout Spain Porto Rican coffee is almost exclusively advertised along with Mocha.

In Barcelona there is not a coffee store or grocery which does not display Porto Rican coffee for sale, which proves that the high reputation of the article is made use of in order to push the sale of other kinds of coffee—such as, for instance—that from Brazil, which, though much inferior in quality, is gradually invading this market. During the first quarter of this year, out of 3,713,000 pounds of coffee imported into Spain, no less than 1,461,849 pounds were from Brazil. The result of this kind of speculation is that since the year 1903–4, when 5,427,918 pounds of coffee were imported into Spain, imports have steadily decreased, and within measurable distance the trade in this product between Porto Rico and Spain will cease altogether, to the prejudice not only of the growers in Porto Rico, but also of the Spanish consumers.

As you were kind enough to assure me of your intention to take up this matter, may I venture to, at the same time, submit to your consideration the advisability of supplementing any action which you may deem necessary in view of the aforementioned facts by a recommendation on your part to the Government, which you so efficiently represent in Barcelona, for a reform of the tariff between Spain and the United States, by which the importation of the product in question might be benefited (fostered) in return for a reduction on wines, oil, and other Spanish products, which is so much desired by that island.

The foregoing letter speaks for itself, and in my opinion the subject deserves attention at the hands of the American Government. In spite of the fact that Porto Rican coffee is still ostensibly as generally sold in Barcelona as formerly the statistics show a steady falling off in the imports of that product. In 1904 the total imports amounted to 5,765,220 pounds and in 1905 to 4,227,714 pounds. In 1897, the last year of Spanish rule in Porto Rico, 14,829,334 pounds of Porto Rican coffee were imported into Spain, this being more than one-fourth of the whole Porto Rican crop.

SUGAR PRODUCTION.

Consul-General Ridgely also sends the latest official figures of the sugar crop in Spain, covering the first three months of this year. During that period the statistics relating to cane sugar, as compared with those for the first quarter of 1905, are as follows:

	1905.	1906.
	Tons.	*Tons.*
Cane received	77,300	63,200
Output of sugar	4,200	3,300

This shows a falling off of 14,100 tons of cane and 900 tons of sugar. The beet crop returns comprise the nine months from the 1st of July, 1905, to the end of March, 1906, and are given as follows:

	1904–5.	1905–6.
	Tons.	*Tons.*
Beet root entered	639,300	678,000
Output of sugar	68,600	75,700

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Thus during the past season 39,000 more tons of beet were crushed, producing 7,000 tons more sugar than during the previous season of 1904–5.

TABLE OLIVES.

METHODS OF PREPARATION.

Consul R. M. Bartleman, of Seville, reports that to prepare olives in the most palatable manner they must be gathered unripe, after the first autumn showers.

Properly assorted according to size and quality, they are first washed in fresh water to remove particles of earth and leaves which usually cling to the fruit. Later they are allowed to soak in a solution of soda and potash, concentrated to between 2° and 6° of the Baumé aerometer. If the solution be very concentrated, eight to ten hours of soaking suffice; if diluted, the operation may continue for three or four days. After the solution has penetrated very nearly to the stone of the fruit, fresh water is substituted and renewed every two hours until it remains clean—a sign that the fruit has lost the caustic flavor which the solution had imparted to it. Next, the fruit is pickled according to processes varying in conformity to the custom of each locality. Some use brine, others admix fennel and thyme, while not infrequently, also, salt and vinegar are employed. In this way whole olives are pickled. Whenever it is desired, on the other hand, that the fruit should imbibe a stronger savor of the pickle into which it is steeped, incisions penetrating to the stone are made.

AUSTRIA-HUNGARY.

URGENT DEMAND FOR MACHINERY.

AN OPPORTUNITY FOR AMERICANS TO INCREASE SALES.

Consul-General F. D. Chester, of Budapest, says that according to a Hungarian manufacturer, writing in the leading morning paper of that city, Hungary still depends on American special lines of machinery, having learned to manufacture up to the present only about half of the amount in demand within her borders. Some 40,000 sewing machines are entered in one year, there being only one factory in all Hungary.

While Americans make machinery, Germans have full sway of the organization of the machine business and sale in Europe. Witness, this manufacturer says, the names Singer and Meidlinger reaching out from Hamburg to the farthest corners of the Continent. To save freight and other expenses these American machines are now mostly made in England, says the writer, and reach Hungary via Vienna, where oftentimes the machine proper is mounted on a frame instead of arriving complete. Hungary has yet no machine storehouses of its own on a large scale, while every little Bohemian house has a branch or warerooms in Budapest, including sowers (5,351) and plows (40,280) in the agricultural line. Chaff and turnip cutters enter in even greater

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quantities. English and even German plows are sold in Hungary by Austrians.

The total value of Hungary's imports of machinery has been (crown =20 cents):

	1902.	1903.	1904.	1905.
	Crowns.	*Crowns.*	*Crowns.*	*Crowns.*
Total	41,115,000	43,786,000	50,396,000	59,111,000
From Austria	33,387,000	33,275,000	38,918,000	42,929,000

Thrashers and steam plows are imported from Great Britain, harvesters and reapers from the United States, and ordinary plows from Germany.

AUSTRIAN MACHINES.

Most of the Austrian machines are imported because Austrian money or management started the particular industry in Hungary using them; but the smaller lines are particularly worked up by the maintenance of industrious local agencies in the towns of northern Hungary where the people use Slovak, or at least are acquainted with Bohemian and Moravian firms and societies. These Slav machines are not so good as the Hungarian small home manufacture, and are as far behind in style as the Austrian and German are behind the American and English. Steam-power machinery is sold from Hungary to the Balkans and Russian, stationary engines and motors are exported now even to Germany. In tool machines Hungary's competition with Austria has not yet succeeded in accomplishing anything. The Budapest machine manufacturers' one trouble is that they can not support warehouses in the smaller cities and towns, and another difficulty is that foreign houses fost[illegible]eir trade by careful placarding, in addition to the regular sending of agents and printed matter. The Hungarian large and small farmers are accustomed to look down on Hungarian manufacturers and goods as of not so prime quality as the foreign. Hungarian engineers and machinists are now trying to work up public opinion in favor of the home products in so far as they exist.

ADVICE TO AMERICAN EXPORTERS.

From the foregoing it is seen that, to compete in Hungary, American exporters must by all means accustom themselves to the new southern transportation route to Fiume, and arrange for actual American branches and agencies in Fiume, Budapest, Serajevo, Belgrade, Bucharest, Sophia, etc. Even Great Britain and Hamburg are too far away in these days of European interstate protection. Goods must be brought at once to the Hungarian and Balkan markets with a saving of postage, freight, etc. The Hungarian and Balkan states' patents and trade-marks must also be conscientiously looked after; and if possible American forwarding agents must also invade southeastern European points just as extensively as London, Paris, and Hamburg. A march must be stolen on the increasing Belgian, German, Swiss, and Italian enterprises which are working in here. If it pays to make pseudo-American goods in such quantities as they are now coming out on the Budapest market, it will certainly pay to hustle over direct, via Fiume, the latest genuine American inventions.

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SWITZERLAND.

BIG COAL PURCHASES.

OFFICIAL LABORATORY FOR EXAMINATION OF FUEL.

Consul F. B. Keene, of Geneva, calls to mind that in the winter of 1899–1900 the advisability of importing American coal to Europe was widely discussed, and a certain number of shipments was made from American collieries to the European continent. His letter continues:

As far as Geneva and Switzerland are concerned, American coal was not tried in this country, although Switzerland, having no coal mines, pays annually to France, Germany, and Belgium a sum of about $13,510,000 for imported coal. I am of the opinion that it might be worth while not to lose the opportunity for increasing the export trade of the United States in that direction.

Some time ago Swiss transportation and industrial concerns petitioned the Federal Council that to the chemical classes of the Federal Polytechnicum High School in Zurich an official laboratory for analyses of fuel be added. In consequence the Federal Council recently approved the following resolution: "The private laboratories for examination of fuel, at present in the polytechnicum (chemical section), will now be considered as official and enlarged. In these laboratories will be treated all kinds of fuel used in Switzerland. The laboratories will be supplied with instruments which will serve to establish chemically the heat power and hardness of fuel."

In view of the above, I think it desirable that the American collieries should have the Zurich Polytechnicum fuel laboratories analyze the kinds of coal which have been advocated as being susceptible of successful exportation to Europe, in order to have an official Swiss opinion, which will help them in introducing their coals in this country. The actual retail prices of fuel in Geneva per 1,000 kilos (2,200 pounds) are:

Fat coal of the French Department of Gard	$10.61
Sarrebruck coal (German coal)	9.65
St. Etienne coal bricks (France)	9.65
Coke	10.61
Anthracite (Gard, France)	10.61
Broken gas coke	9.65

NETHERLANDS.

STRAWBOARD MAKING.

DUTCH FARMERS NOW HAVE THEIR OWN FACTORIES.

Consul Frank D. Hill, of Amsterdam, reports on the manufacture of strawboard, an industry of moderate importance carried on in the northern Provinces of Holland, where the building of new factories and the enlargement of old ones continues.

Results, however, are not as brilliant as formerly when the number of factories was smaller, and when there were no factories working on a cooperative basis, which have recently been established by the large farmers who formerly had to sell their straw at any price it would fetch to the few existing speculative factories. Whereas formerly

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only $2 per ton on an average was paid for straw, now the market price on an average may be taken at $8. Prices of strawboard have not increased in proportion, and where formerly dividends of 40 per cent and over were paid, it now happens that factories close the book year at a loss in consequence of having entered into unprofitable contracts. Data from Holland, however, can scarcely avail for the United States, where conditions are distinctly different. Boilers in the Netherlands, for example, are principally supplied with turf and straw brought by water from the nearest place. Wages are very low even in comparison with other industrial centers of this country, and as factories deal only with a few customers, the administration of most of the factories is very primitive.

The quality of the strawboard made in the Netherlands differs largely from the quality of the kind of strawboard in greatest demand in America; Holland produces principally smooth finish, against rough and medium finish in the United States. The cost price of a factory in the Netherlands of a capacity of 100 tons per week I estimate at about $40,200. Exports of strawboard from the consular district of Amsterdam to the United States in 1903 were, in value, $13,301; in 1904, $58,929, and in 1905, only $6,195.

NORWAY.

DEMAND FOR AMERICAN ARTICLES.

Consul B. M. Cunningham, of Stavanger, Norway, reports that there is demand for several American articles in that market. He says:

There is a splendid field here for the introduction of modern cook stoves and ranges. Ninety-five per cent of the bread consumed is bought at the bakeries, the stoves not being equipped with ovens for baking bread. American shoes would sell well if they were kept in stock. Very few farming tools are manufactured, and those that are made for the local trade do not compare at all favorably with the American make. In the hardware line one can buy almost every kind that there is a general demand for, but the prices of the American brands are higher than the domestic article.

PORTUGAL.

GOVERNMENT TOBACCO MONOPOLY.

Minister Bryan reports from Lisbon, under date of April 10, that the new ministry of Portugal has formulated and officially published the conditions upon which the new contract for the tobacco monopoly will be granted. The conditions have been drawn with much care, and have been received with general satisfaction.

The contract will run for nineteen years, at which time all rights thereunder revert to the Government; yearly profits in excess of a stipulated amount are shared between the Government, the concessionaires, and the operatives; the interest upon and redemption of the present loan secured by the tobacco revenues is guaranteed, and no new loan will be necessary. A month's time is given for the preparation and submission of bids, which will be opened at 3 o'clock on the afternoon of the 7th of May.

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ASIA.

CHINESE EMPIRE.

COMMERCE AT AMOY AND SWATOW.

AMERICAN OIL ILLUMINATING HOMES OF THE PEOPLE—GENERAL TRADE.

Consul George E. Anderson covers the commercial situation at Amoy and Swatow with the promotion of American trade in view. He reviews the results for last year as follows:

The trade year of 1905 in the Amoy consular district has made a rather poor showing. There was a decrease in the customs revenue of from $585,500 in 1904 to $577,977 in 1905, and there appears to have been decreased business in several lines. The total imports of Amoy last year were $12,885,016 as compared with $13,134,218 in 1904. The exports (not counting reexports like tea) were $2,134,188 as compared with $1,877,762 in 1904. American trade on the whole makes a very fair showing in spite of the anti-American boycott. The chief cause for the decrease in customs revenue was in the decrease in the importations of bean cake from northern Chinese ports, due mostly to the war between Russia and Japan, which also deterred shipping, and such imports as coal, lead, copper, and tin metals, and machinery, rice, flour, and many forms of provisions. In short, the war interfered with Chinese trade in many ways. Loss of Chinese trade in these lines meant loss of trade for the United States in many lines. The great gain in American trade in the Far East during the past year would have been greater in some lines but for the war. The imports of flour at Amoy in 1904 were 18,335,646 pounds, valued at $585,500, as compared with 16,995,405 pounds, valued at $301,968, during 1905. The flour trade was interfered with somewhat by the poisoning of a number of Chinese people in Amoy and upcountry from morphia smuggled in flour from Hongkong.

STRONG POSITION OF AMERICAN OIL.

The imports of kerosene for 1904 and 1905 from the United States were 700,050 and 779,530 gallons, respectively, while the imports from Sumatra decreased from 2,808,305 to 2,415,755 gallons. This proportionate increase in American oil is illustrative of the increase in the entire territory hereabouts. In 1904 132,000 gallons of American oil were forwarded to the interior, while the shipments in 1905 were several times this amount. The sales of American oil at Foochow and Swatow which are effected under the Amoy agency have increased several hundred per cent in less than two years. This increase has been effected in spite of the anti-American boycott, which has in every

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port been particularly directed against American kerosene, in a number of instances at least being directly furthered by foreign competitors of American kerosene. In Amoy, Foochow, and Swatow arrangements have been completed for the erection of tank installations for American oil, and the prospects are that the eventual result will be the domination of this market by American oil. Kerosene is changing the social and domestic life of the great masses of China's population. A few years ago the enjoyment of an evening of reading or social intercourse was almost unknown to the Chinese family. Both are now possible through the improved means of illumination. The old peanut oil and other similar industries are dying out. Kerosene is now found far in the interior where foreigners are never seen. The kerosene trade of China is in the hands of Chinese traders, working under American and foreign agents in the larger ports, and this system of sales and distribution ought to be studied by every American concern seeking trade in China.

INCREASED SHIPMENTS TO PHILIPPINES.

One of the most notable features of the trade of Amoy during 1905 was the increase of direct shipments of goods of many sorts to the Philippines. At present there is a strong movement of caribou and other cattle from the lower Chinese coast to Manila and other Philippine ports, and those engaged in it report it profitable. Large quantities of food for Chinese in the Philippines are exported, and it is probable that this trade will increase rather than diminish. Last year there was a total of 5,392 Chinese emigrants from Amoy to Manila, compared with 5,080 in 1904, in spite of the fact that the total number of emigrants leaving Amoy in 1905 was only 76,329, compared with 102,908 the year before. Amoy is sharing in the increasing importation of Chinese food in the Philippines.

TRADE OF SWATOW.

The trade of the port of Swatow during 1905, for similar reasons, fell off somewhat more than did that of Amoy. The revenue decreased about $15,000. There is considerable increase in the exports of Swatow to the Philippines and the port is maintaining its hold upon the preserved-food trade with Singapore and Indo-China. The sugar trade is improving somewhat, but the decline in the indigo dyeing business seems to be permanent. It was expected that the railroad from Swatow to Chouchowfu would be completed during the year, and it was confidently promised by the present promoters that it would be in working order to a half-way point by Chinese new year's (January 24, 1906), but it will probably be well toward autumn before any considerable portion of the line will be in use.

NEW NATIONAL SCHOOLS.

EDUCATIONAL SYSTEM ADOPTED MODELED ON WESTERN IDEAS.

Consul Anderson furthermore writes that the commercial world has looked upon the "awakening of China" to western arts and ideas, and through them to the use of western conveniences and appliances, as something toward which they should bend all efforts possible.

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The first new educational step of the Peking Government was in 1903, when a commission of one Manchu and two Chinese high officials was appointed to study the whole situation and report as to the most feasible course for China to adopt. The old method of conferring literary degrees, by holding biennial and triennial examinations as a means to encourage self-education, was abolished in November, 1905, the authority to confer degrees being now vested in the university and colleges to be established under the control of the Government in Peking.

PRIMARY SCHOOLS, COLLEGES, AND UNIVERSITY.

A board of education has been created in Peking to devise means to introduce western education and an elaborate system of schools of different grades has been initiated. The plan is to have one or more elementary schools in every magistracy, middle schools in prefectures, colleges at the capitals of the provinces, and a university at Peking, besides normal schools for teachers at points where it may be advisable. In view of what Japan has accomplished in recent years China has looked to Japan for a model and for help, and it has openly been announced by Chinese statesmen that their aim is to pattern the University of Peking after the Tokyo University.

Education is not compulsory under the present law. Chinese boys 7 years old are eligible to enter elementary schools, which are divided into two grades, the first and second, with a five and four years' course in each grade, respectively. The course in the first grade elementary school includes eight different subjects—moral training, Chinese classics, Chinese literature, arithmetic, history, geography, sciences, and gymnastic exercises. Besides these, the second grade elementary schools include drawing as a ninth subject. Instruction is given in these schools in the Mandarin dialect, and no foreign language is taught until the boy is admitted into the middle school. The five-year curriculum in the latter includes foreign languages, which may be Japanese, English, German, French, or Russian. It also includes physics, chemistry, and political economy.

After graduation he can apply for admission to college, where in three years he is fitted for the university, in which specialized courses of law, medicine and surgery, agriculture, literature, etc., are given. English is compulsory in the college, other foreign languages being elective. The courses in the university as planned represent a high order of practical technical and professional instruction, but at present the matter has scarcely gone beyond the theoretical stage, the university lacking apparatus and instructors, its proposed housing being converted temples and examination halls.

HOW SCHOOLS ARE SUPPORTED.

These schools, however, are not public schools in the American sense. The matter of support is left to the officials of the several Provinces to pass upon as best they may. The provincial officials in turn leave the matter to the officials of the several districts and subdistricts. What schools now exist in line with this plan of education are supported largely by tuition charged pupils, by special local taxes, by gifts from wealthy people, and by any other means which may be possible. In some Provinces a certain portion of the general taxes

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are set aside for the establishment and maintenance of these schools. Tuition is charged in practically all schools, however, and the support of nearly all these institutions is more or less precarious and unsatisfactory.

ATTITUDE TOWARD UNITED STATES.

Undoubtedly one reason why more Chinese students have not visited the United States is because of immigration restrictions. A year ago there were about 2,500 Chinese students in Japan. Now there are fully a thousand more. There is, on the part of the Chinese officials concerned, a strongly marked disposition to send students who intend to study abroad to Japan, rather than to European countries and especially to the United States.

The anti-American boycott agitation in China during the past eight months has been furthered by students more than by any other element. The business relations of the United States and China have been threatened more by this noncommercial portion of the population than by any other. It is unsettling and, having nothing at stake, irresponsible. From this class trouble in the future may possibly come. However, it is one of the most favorable aspects of the new turn of things in China that the danger of disturbance to follow a too sudden turning from the old to the new is appreciated.

The result of this new system of education ought to be a constantly increasing demand for all classes of foreign goods, for foreign books, instruments, and appliances, for machinery of all kinds; in short, for all those articles of foreign manufacture which go to make up present day western civilization. A general demand for such goods from China need not be expected in a day, but the demand will come in due time.

TOBACCO IN EMPIRE.

BULK OF CONSUMPTION IS RAISED AT HOME.

Already there is considerable business done in foreign leaf, Shanghai alone importing $150,000 worth last year; but this was mostly for use of foreigners. The real Chinese trade is not reached. When it is considered that the same port imported through the customs alone $1,250,000 worth of prepared native leaf and over $333,000 worth of native leaf, with probably a similar or even greater amount of each imported through the likin routes, it can be seen that the real tobacco trade of China is enormous. But the greater portion of the tobacco consumption gets into no trade reports, for the leaf is produced (largely among the mulberry trees), cured, and consumed on the farms, or consumed by the men, women, and children of the near-by villages. Thus American leaf tobacco would necessarily compete with the cheap native tobacco and the combinations of foreign concerns.

The sale of foreign prepared tobacco in China in 1904 (the latest figures available), reached $2,300,000 gold, practically all in the shape of cigars and cigarettes, in which American enterprise had the largest share. Early in the development of this trade the American interests concerned found it advisable to manufacture cigarettes in China, and a factory was established in Shanghai. After using imported leaf for a time Chinese leaf was largely adopted, and is being extensively used. At the same time the increase in the use of foreign tobacco and cigar-

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ettes ought to have a favorable effect on imports from the United States. But with the trade in powerful hands, American independent exporters will not find an easy market. Last year Amoy imported 4,013,400 pounds of leaf tobacco, valued at $12 to $20 Mexican per picul (133⅓ pounds), the reexports being 346,700 pounds. Practically all came from Shanghai, Hankow, Wenchow, and Changchu. This tobacco is light in weight, and probably only a light American leaf could be sold here, and that mostly for blending. Most foreign prepared tobacco is too strong for the Chinese smoker, who uses a long pipe with a very small bowl. The tobacco business of Amoy is largely in the hands of a score of native firms.

GINSENG TRADE.

GROTESQUE-SHAPED ROOTS COMMAND FANCY PRICES.

Consul Thornwell Haynes, writing from Nanking, says it has often been asserted that, next to tea, ginseng is the most celebrated plant in all the Orient. It may well be termed the cure-all, as the Chinese have a wonderful faith in its curative and strengthening properties, for which reason it has been styled the "cinchona of China." It is considered to be "a cure for fevers and weaknesses of all sorts, the chief and most costly medicine." The consul continues:

The plant is found wild in the mountain forests of eastern Asia, from Nepal to Manchuria. It formerly grew in Fukien, Kiangnan, and Shansi, but was supplanted by the Manchurian wild root. The root is carefully hunted for by the Manchus, who boast that the weeds of their country are the choice drugs of the Chinese.

Of the 37 ports in China where the Imperial maritime customs is established 10 import ginseng. Imports during 1905 were as follows: Shanghai, 103,802 pounds; Wuhu, 2,374; Kiukiang, 2,800; Hankow, American clarified, 5,100; Ichang, American clarified, 34,800; Chunking, American clarified, 6,200; Chefoo, 80,408; Wenchow, 9,100; Canton, 75,800; and Foochow, 15,007 pounds. The total importations for the past five years at these ports were: 1902, 407,021 pounds; 1903, 404,009 pounds; 1904, 318,598 pounds, and 1905, 331,381 pounds. These figures, however, by no means represent all the ginseng entering China, as much of it comes through the native custom-houses, which keep no tabulated data of exports and imports, and great quantities of it are smuggled into China, especially over the Korean boundary. Niuchwang is the one Chinese port which exports native ginseng. Its exports for 1902, 1903, 1904, and 1905 were, respectively, 228,000, 215,100, 57,000, and 160,900 pounds.

PRICES FLUCTUATE.

It would be impossible accurately to price ginseng. Some wild roots have been known to realize their weight in gold, while the cultivated is purchased for from 50 cents a pound up. Speaking generally, I am informed that the present average prices are for the best, $12 per pound; fair, $6.50, and ordinary, 50 cents to $1 per pound.

Japan sends to China the cheapest ginseng, a great deal of which is used to adulterate the better Korean. The value and quality of the

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root of the four principal producing countries ranks as follows: Manchuria, Korea, America, and Japan. Prices often vary according to the manner of clarifying. Some Chinese provinces prefer it white, others a reddish, and still others a yellowish tinge. The Korean root is reddish, due, it is said, to the ferruginous soil, others asserting it to be due to the peculiar process of clarifying. Most of the Korean product goes to southern China, entering by way of Hongkong, where the reddish tinge is much preferred.

Wild ginseng, from whatever country, always commands a better price than the cultivated, mostly because of Chinese superstition, which prefers roots resembling man, or some grotesque being, rather than the regular normal roots, which cultivation naturally tends to produce. It has been stated that Chinese druggists, when questioned closely as to the real difference between the Manchurian wild and the American cultivated root, admit that such difference is mostly imaginary, although there is a real difference in the appearance of the roots, but that since the Manchurian ginseng comes from the Emperor's mother country, and from the same soil from which sprang the Son of Heaven, the Chinese regard it as infinitely more efficacious as a nourishing and life-giving panacea than any other ginseng could possibly be.

A SUSTAINED DEMAND.

Many assert that the future demand for ginseng will be a decreasing one, from the fact that its imaginary properties of curing every disease on earth will be dissipated in proportion to the advance of medical science. There can be no doubt, however, but that ginseng has curative properties.

Whatever its medicinal properties, it can safely be asserted that it will take many generations, perhaps an eternity, to shake the Chinaman's implicit faith in his mysterious, time-honored cure-all. It would seem that the present boycott has little effect upon the sale of ginseng, as many articles are handled by Chinese merchants who are ignorant of their origin. "As a rule, to the Chinese merchants, all foreign goods are the same, whether they come from America or Africa. The people who buy the ginseng do not know where it comes from. Many of the druggists think that it comes from France because a French importing firm brought it to them."

AMERICAN PRODUCT COMPARED WITH HSIYANG.

To parties in Missouri who inquired about ginseng prices, Consul-General Sammons, of Newchwang, referred his correspondents to a report made by him the latter part of 1905, and furnished the following additional information:

The price per pound of Hsiyang (west ocean, foreign, or western country) or American ginseng may be quoted as follows: Largest and most grotesquely shaped, $23 gold; medium size, $19 gold; small size, $11 gold.

There is no difference in the prices quoted on various varieties of ginseng grown in America or elsewhere abroad. That is to say, there is no difference in this market in the prices quoted on cultivated American ginseng or what is termed wild American ginseng. It is all

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classed as west ocean, foreign, or western country ginseng. Quality, or largely the color, and the peculiar or grotesque in shape, has much to do with fixing the price. Samples of American sinseng, forwarded to me for comparison with the native Manchurian product is of a yellowish shade. Native dealers declare that it is of little real market value, while a sample of similar size (smaller than a medium sized little finger), of cultivated Manchurian ginseng, and of a light, chalky or whitish shade, cost 25 cents gold in a native store. Ginseng experts claim to be able to detect the foreign product under any and all conditions, even if it were brought to Newchwang from the interior of Manchuria by imposters.

The price per pound of Korean ginseng is at present approximately $35 gold.

American ginseng is classed as a rule with Hsiyang—that is, west ocean, foreign, or western country ginseng. The imports of this article at Newchwang for 1905 amounted to $4,612 gold. The exports of Manchurian ginseng, through Newchwang to Chinese ports, for 1905 aggregated $180,199 gold; for 1904, $205,431 gold. Customs valuations, however, are somewhat misleading, as it is difficult or impossible to secure a definite valuation as to whether the cargo is worth a few dollars per pound or $30 or $50 gold per ounce. Wild Manchurian ginseng is rare even in Manchuria, and its estimated valuation ranges at present from $450 to $600 gold per pound. The total imports of foreign ginseng into China for the year 1904 aggregated 277 tons valued at (haikwan taels 1,412,384, at 66 cents gold) $932,173.44 gold; for 1905, 195 tons, valued at (haikwan taels 2,000,283, at 73 cents gold) $1,460,206.59 gold. The increased valuation in 1905 over 1904 emphasizes the increasing price of ginseng (and silver.)

THE AMERICAN PRODUCT.

Inasmuch as American ginseng is classed as above it has not suffered as a rule at the hands of the consumers as the result of the boycott. But to what extent American ginseng imports may have suffered, if at all, through the so-called Chinese medicine hong (business houses) managers, who in turn buy of foreign commission houses in the various ports, only an extended inquiry and careful examination of the latest imperial Chinese customs reports, not at present available, will determine with any degree of accuracy.

Hsiyang, or American ginseng, is marketed in China largely through Hongkong and Shanghai foreign commission houses. If the Newchwang trade warranted it such firms as E. A. Sargent & Co., Arnhold Karberg & Co., Mitsue Busan Kaisha would, no doubt, handle American ginseng on commission.

HANKOW MARKETS.

VALUABLE SALES POINT FOR AMERICAN GOODS.

The imports at Hankow, China, during 1905, according to British consular figures, amounted to $38,146,000 foreign and $9,352,000 native. The exports totaled $41,875,000, thus making up a gross

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trade of $89,373,000. The reexports figured at $3,373,000 foreign and $4,721,000 native, leaving a net foreign trade at Hankow of $81,279,000 last year.

Gross native imports fell off nearly 60 per cent, while those from abroad declined $876,000, the latter being really due to the exclusion from the Hankow returns of trade of goods to places beyond, which is proved by the reduction in reexports from $22,393,000 in 1904 to $3,373,000 last year. This leaves the net foreign imports of 1905 about $7,811,000 in advance of the previous year.

MONEY-EXCHANGE TROUBLES—FOREIGN SHOPS INCREASING.

Foreign cotton goods importations at Hankow declined in total value nearly 14 per cent, continues the British consul. The exceptions in piece goods of any moment are British jeans, British and American sheetings, American drills, and the smaller items of Japanese and Indian T-cloths, Japanese handkerchiefs, towels, and cotton cloth. The explanation given by all the authorities consulted is that the reverse is due to the fact that the ultimate buyers pay in cash, while the retailer has to pay the wholesale dealer in silver, and the latter to pay the importer in gold; the depreciation in the silver value of the 10 cash pieces, which have driven out the genuine cash, is so great as to far more than counterbalance the advantage of a high silver exchange. Hankow piece-goods dealers are calculated to have lost at least $438,000 during 1905, and the local market is very dull.

The foreign shops in Hankow tend to increase, the pressure of likin leading Chinese to open shops in partnership with Europeans now that this is legalized by the Japanese supplementary treaty—a device that is greatly resented by the Chinese authorities, who likewise are suspicious of the native agencies in the interior authorized by the Japanese treaty of Shimonoseki.

OPERATION OF AMERICAN BOYCOTT.

The import of kerosene oil reached the unprecedented total of 26,390,610 gallons, being an advance of 35 per cent over 1904. Business in American kerosene was good, but the boycott agitation certainly curtailed sales for a time, as buyers from the Standard Oil Company could not, like the dealers in American textiles, pretend the stuff came from some other country than the United States. The agitation was kept up partly by paid lecturers and returned students, partly by the native employees of competing houses. The local authorities did nothing to check the movement, asserting that they could not, for the benefit of foreigners, disregard their people's wishes, and ignoring the fact that the bulk of the people were intimidated into joining the agitation.

The principal items of foreign import at Hankow in 1905 were as follows:

Opium	$132,000	Machinery	$1,285,000
Cotton goods	9,708,000	Oil, American	1,326,000
Woolen goods	401,000	Oil, other foreign	1,027,000
Other textiles	115,000	Railway material	1,556,000
Metals	12,550,000	Other sundries	6,673,000

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LARGE PURCHASES OF COTTON GOODS.

In cotton goods the purchases of nearly 10 million dollars' worth at Hankow last year were in the following classifications:

Articles.	Pieces.	Value.	Articles.	Pieces.	Value.
Shirtings, gray, plain:			T cloths, British	83,834	$100,500
British	622,522	$1,182,000	Chintzes, printed	37,935	62,500
American	14,790	30,500	Cotton italians	246,823	862,000
Sheetings, gray, plain:			Cotton lastings	125,195	278,000
British	78,207	186,000	Turkey-red cambrics	56,109	86,000
American	79,579	164,500	Cotton flannel:		
Shirtings, white:			British	3,291	9,000
British	336,165	898,000	American	21,488	58,000
Dutch	22,404	63,000	Cotton yarn:		
Drills:			British	[a] 498,666	99,500
British	27,518	65,500	Indian	[a] 6,915,066	968,000
American	234,429	614,000	Japanese	[a] 23,204,533	3,325,000
Jeans:			Other cotton goods		335,000
British	54,288	104,000			
American	2,660	6,000			

[a] Pounds.

American shirtings fell off in imports nearly one-half, having been over $54,000 in 1904, British shirtings likewise decreasing to the extent of 12 per cent. American jeans declined from $11,300 to $6,000, while British jeans went up from $82,500 in 1904 to $104,000 in 1905. American cotton manufacturers, however, made the large gain of $270,000 in the sale of drills above that of 1904 and the small gain of $14,000 in the sale of sheetings. The slump in cotton-flannel imports was heavy, the British supply falling from $123,600 in 1904 to only $9,000 in 1905, while the American goods dropped back to the extent of $32,000.

Among the sundry articles of import at Hankow in 1905 were $74,000 worth of ginseng from America and Korea, nearly $400,000 of gunny sacks, $94,000 of crucibles, $87,000 of cigarettes, $100,000 worth of medicines, $100,000 of fire brick, and $38,000 of brass buttons.

GENERAL IMPROVEMENTS.

Building at Hankow by foreigners and Japanese is now active in the concessions and neighborhood. The viceroy is building a macadamized road along the old defense wall. A British firm has obtained authority to install electric-light works in the concessions, but the Chinese authorities refuse to let them do anything in the native town. The viceroy engaged a British engineer to examine and report on waterworks for Hankow, which the viceroy proposes to carry out by a joint stock company registered at the Chinese board under Chinese commercial law. In fact, the Chinese authorities are showing a determined disposition to "recover China's resources of profit and power" by curtailing to the utmost the rights granted to foreigners by treaties.

The export of tobacco has assumed considerable dimensions. The viceroy is starting an experimental estate and sheds for improving and curing, with the ultimate intention of establishing a cigarette factory. A British merchant is entrusted with the supervision of the enterprise, and is to engage an overseer from Manila. The railway now runs through to Peking, and, the consul adds, is doing a good business.

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STUDENTS' UNIFORMS.

NEW IDEAS BEING ADOPTED BY AWAKENING MONGOLIANS.

The establishment of Government schools in China, and the equipment of students in uniforms is furnishing a market for military clothing. According to the British consul at Wuchow sixty of these schools have been opened in that prefecture alone. The uniform consists of a coat and trousers of foreign cut, with brass buttons and peak caps, and shoes of foreign pattern. The material used is either serge, union cloth, or cotton tweed for winter uniforms, and for summer wear any light cotton cloth. In the strictly military schools khaki is worn. All the uniforms seen appear to be of British cloth, but there is a rule, which is evidently ignored, that only native material be used. Caps, buttons, and braid all come from Japan. The shoes are said to be of Hongkong manufacture, but a very inferior kind is made locally of native leather. The cost of a uniform of cotton tweed, the cheapest, is only $3.60 Mexican ($1.80 American currency) made to order; a set of buttons, five in a set, costs 20 cents, and cap from 40 cents to $2.20; shoes from $1.10 to $2.20. Quality in every case is extremely poor. This uniform, the consul adds, is becoming fashionable among the younger male generation in that part of China, and every child whose parents can afford the expense is now decked out as a miniature student.

The consul also points out that the popularity of India rubber shoes in China continues to grow, and the import at Wuchow, though still small (26,416 pairs in 1905), is steadily increasing. The shoes came from Russia, the United Kingdom, and, before the boycott, from America.

TRADE COMPARISON.

HEAVY DECLINE IN BRITISH IMPORTS.

To show the progress of commercial rivals in neutral markets the London Commercial Intelligence gives the average increase in exports to China for the quinquennial period of 1900–1904 over the period of 1885–1889. In the case of the United Kingdom the average increase in exports was 19 per cent, while in the case of the United States it was 178 per cent. The increase in the case of exports to Argentina are very similar, as will be seen from the following table giving the percentage of average increase in 1900–1904 over 1890–1894:

	United Kingdom.	Germany.	United States.
China	29.2	81.8	157.6
Argentina	36.2	122.1	160.9
South America	−2	35.1	25.3

Commercial Intelligence says: "It is quite evident that tariff obstacles have had nothing to do with this lamentable showing, and we are bound to say that we find in the figures considerable support for our contention that British manufacturers under our merchant system are not so efficiently represented abroad as they ought to be, otherwise we should not see this failure to keep pace with the manufacturers of Germany and the United States in neutral markets."

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MANCHURIA.

TRADE IN BEAN CAKE.

Replying to inquiries from parties in California regarding the advisability of using Manchurian bean cake in the orange groves of southern California, Consul-General Sammons writes from Newchang that he sent samples of the bean cake to the Secretary of the Honolulu Chamber of Commerce, who turned it over to a large guano and fertilizer company, from whom the following report was received:

Aside from a few elements of minor importance the cake contains 7.62 per cent of ammonia (equal to 6.28 per cent of nitrogen), which constitutes its chief fertilizing value, and, as organic ammonia is worth here about $2.75 unit in the ton of 2,000 pounds at the present time, the commercial value of the bean cake would be about $21 per 2,000 pounds delivered at this port. The form in which it is offered is rather in the way of its introduction here, as the material will be hard to apply, whereas if packed loose in bags it could be handled much better.

In forwarding the foregoing, Consul-General Sammons writes:

The average price of bean cake at present, at Newchwang, is from $19 to $20, gold, per ton. The Japanese are controlling, if not practically monopolizing, the bean-cake trade, which is the chief industry of Manchuria. Heretofore the Japanese have confined the management of their bean-cake exploitation almost wholly to this port and have neither attempted any extensive purchasing operations in the interior at first hand nor the sale of the product in China proper, they having taken the bulk of the product of recent years direct to Japan. Now, however, they have undertaken both the purchase of the product in the interior, which tends to take the business out of the hands of native commission houses, and, what is more alarming to the native shippers, they have this season, for the first time, inaugurated a new business campaign by shipping bean products direct from southern Manchuria to southern China. One of the numerous results is the above-quoted high price of bean cake, at which figure the Honolulu valuation scarcely warrants shipment either to the Hawaiian Islands or to southern California. The farmers of Manchuria are reaping rich returns from the prevailing high prices, the bean-producing area is being increased, and lower prices may eventually follow. Ultimately, however, bean lands will probably be found more valuable for wheat-raising purposes.

PROGRESSIVE AWAKENING.

MODERN METHODS AND IMPLEMENTS IN AGRICULTURE.

Mr. Sammons, answering inquiries as to the introduction of farm machinery into Manchuria, writes:

Catalogues and advertising matter generally printed in Chinese and illustrated will attract attention in Manchuria at this time and may

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result in the placing of orders. I have discussed the subject of modern agricultural machinery with a number of natives, including extensive holders of farm lands, and find that the prospect of farming large tracts—that is, a number of small farms under one management—is fairly promising. The Chinese are changing their ideas in many minor matters pertaining to agriculture. Agricultural colleges are being established in various Provinces. These are mostly under the direction of the Japanese, who, in turn have examined American ways and methods. In this Province, for instance, Mr. Sojiro Yokoyama has just been engaged as agricultural advisor to the governor-general at Mukden. He is also director of the Industrial Bureau of Formosa, and has but recently returned from a trip to America, where he spent eight months.

While the Chinese agriculturists lack initiative, as a rule, many of the ultra reform officials are themselves active in urging modern methods. Chinese methods of farming are largely based on economy. Initial cheapness appeals to the farmer, in many instances, more than permanent benefits. If they can be shown wherein modern American agricultural implements or machinery will bring greater profits they will not delay making purchases.

FARM AND GARDEN SEEDS.

Mr. Sammons furthermore reports that the authorities there are exhibiting much interest in the procurement of agricultural seeds, and suggests that American producers have an opportunity to introduce their products. He writes:

In this province the Chinese Government is examining into the question of utilizing foreign agricultural seeds. The same is true of other provinces. Letters addressed to the viceroys in Chinese would no doubt receive consideration. The Governor-General at Mukden informs me that he is very much interested in this subject, and is anxious to obtain various new varieties of seed suitable for the southern Manchurian climate, which, from an agricultural standpoint, is somewhat similar to Utah. Through the Japanese agricultural adviser, Mr. Sojiro Yokoyama, new varieties of grass seed are now being ordered from Japan for lower Manchuria. Many of the Japanese plants and seeds suitable for a mild, damp climate do not thrive in the dry climate that prevails in some sections of Manchuria. American beet seeds are to be extensively experimented with in Manchuria next season.

The new agricultural college at Chinanfu, province of Shangtung, is in charge of Mr. S. Yatsui and other Japanese agriculturists, and American seed houses may deem it worth while to communicate with the parties in charge of institutions of this nature as well as advisers to viceroys and governors-general in agricultural matters, etc.

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SIBERIA.

VLADIVOSTOK TRANSIT TRADE.

PRESENT CONGESTION TO GIVE WAY TO SUPERIOR METHODS.

Commercial Agent Roger S. Greene makes a report from Vladivostok on the plans for the improvement of transit-trade facilities at that Siberian port as follows:

The agent of the Chinese Eastern Railway publishes a letter describing the preparations which are being made to encourage trade through this port with Manchuria and Siberia through an agency at Vladivostok, with branches at other ports, which will have at its disposal wharves, warehouses, and special tracks connecting with the Ussuri railway station, and will transact all business in connection with receiving and forwarding goods, attending to custom-house formalities, etc. Undoubtedly there are great possibilities in this plan, especially if an export trade can be developed, but at present the railroad situation is not encouraging, for there is still such a constant demand for cars for Russian troops and military supplies that it is difficult to get private freight through quickly. There are still immense quantities of merchandise here stored in the open air on uninclosed groud awaiting shipment to the interior, much of which is likely to be damaged by rain and is subject to wholesale thieving, which it is difficult to prevent. The municipal government and the local board of trade have telegraphed to the St. Petersburg authorities asking for an immediate loan of $100,000 for the erection of warehouses. The inability of the railroad to furnish cars is also keeping flour mills, sawmills, etc., idle, because cars can not be secured to bring the needed raw material from the interior.

PLANS FOR THE FUTURE.

The commercial agent of the railway expects to bring about a whole series of improvements to attract transit trade at Vladivostok. A special low tariff was made for the transportation of tea from Shanghai, Hankow, and Colombo to points on the Russian lines, in conjunction with the various Russian steamship companies, and they anticipate an eventual freighting of 52,500 tons of tea per year via this route, especially if the Vladivostok banks undertake to advance the tea traders money on their shipments.

The Chinese Eastern Railway has decided to work up the exportation from Manchuria via Vladivostok to Chinese and Japanese ports of beans and bean products, hides and bones, and even of wheat. A couple years ago the company made a successful trial shipment of Sungari wheat via Dalny to Hamburg. It is their intention to export Siberian butter, bringing it to Vladivostok in their own refrigerator cars. It is proposed to market the butter in China, Japan, Indo-China, and the Philippines. A trial shipment of Siberian butter to Shanghai in 1903 caused alarm to the Australian butter exporters.

The railway agent further states that they are occupied with the task of introducing improvements in the transshipping of cargoes at Vladi-

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vostok from steamers to the railroads, so as to reduce the expenses to a minimum. To reach the wharves at Cape Eghersheld rails are already placed. Large scales for weighing carloads are being set up, and the erection of two large iron warehouses is going on, the buildings to be ready by the middle of May. Besides that a quantity of tarpaulins will be on hand, so that the agent announces the wharf at Eghersheld will accommodate over 32,000 tons of freight within two months.

THROUGH SHIPMENTS AT LOW TRANSFER COST.

The commercial agency of the railway announces that it will redeem the cargoes at Vladivostok from all indebtedness to steamers and banks, pay the freights and incidental expenses, deliver duplicate bills of lading to the banks as security, make collections from the consignees, mail the duplicate bills of lading to the proper persons, according to the instructions from the shippers. Similar agencies are also opened in Shanghai, Harbin, Kirin, and Kuanchentsu for facilitating the shipment of goods via Vladivostok in both directions, and of performing the same necessary formalities. The fees will be light; the charge for storage will be from 15 to 62 cents per ton per month. Transit freight will have the privilege of seven days' storage free, and freight arriving at special transit rates will have entirely free storage at points of transshipment. The charge for custom-house brokerage, etc., will be about 9½ cents per ton, and on large lots about 3½ cents per ton.

JAPAN.

INDUSTRIAL MOVEMENT.

OVER ONE HUNDRED MILLION DOLLARS IN LOANS FOR ENTERPRISES.

Consul-General Henry B. Miller, of Yokohama, traces the remarkable industrial growth of Japan during the past decade. He writes in part:

The number of industrial companies operating in Japan in 1896 was 1,367, with $44,950,450 paid-up capital. In 1904 they had increased to 2,384 and $81,418,000 paid-up capital. Their relative importance in 1904 may be seen in the following figures: Commercial concerns numbered 5,609, which had $38,000,000 capital; 682 transport companies had $154,706,000 capital; 2,300 banks had $190,000,000 capital, and 238 agricultural companies had $1,610,000 capital. Among the leading industries at the end of 1904, cotton spinning ranked first, with $16,186,000 invested, while spinning other than cotton represented $3,018,000 more, electric-light plants $6,927,000, and gas plants $3,334,000, kerosene wells and refineries $5,230,000, shipbuilding $5,170,000, paper mills $4,442,000, mining and metal refining $3,216,000, coal mining $2,890,000, raw silk mills $2,057,000. The industries of cement, carriage, sugar refining, beer, sake, woolen fabric, chemical, and milling each represented investments of one to two million dollars. The bulk of Japan's industrial exports are sold in China and other Oriental countries, where she is rapidly extending her trade.

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LARGE EXPENDITURES IN VIEW.

This fine showing of industrial growth will be far surpassed by the years 1905 and 1906. The war strengthened the credit of Japan, and foreign money is seeking loans and investments here in astonishing quantities. The banks have therefore reduced interest rates on fixed deposits from 5½ to 5 per cent. The following is a partial list of industrial loans recently made and being negotiated, totaling $115,000,000:

Electric railway companies: Moji, $350,000; Kioto-Osaka, $2,500,000; Osaka-Kobe, *$1,000,000; Myojin, $1,000,000; Tatsuno, $125,000; Dairen, $750,000.

Electric light companies: Osaka, $1,400,000; Tokyo, *$2,500,000; Nagoyo, *$350,000.

Water power electric companies: Uji, $6,250,000; Hakone, $400,000; Fuji, $15,000,000; Tamagawa, $10,000,000; Tokyo, $1,500,000; Himeji, $75,000; Nankai, $75,000; Kisogawa, $1,500,000; Ogaki, $100,000; Iyo, $150,000.

Cotton-spinning companies: Wakayama (new), $225,000; Wakayama, $150,000; Murai, $15,000,000; Nippon, $500,000, Godo, $400,000.

Local bonds: Yokohama City, $1,350,000; Niigata, *$500,000; Yokkaichi Harbor, $750,000; Tokyo Water Works, *$5,000,000; Nagoya City, *$5,000,000.

Coal mining, etc.: Ibaraki coal, $250,000; Kerosene iron pipe, $500,000; Ishikari coal, $7,500,000; Takashima gold, *$100,000; Kumoi coal, *$3,750,000; Namboku kerosene, $750,000; Hokkaido colliery, *$5,000,000.

Various companies: Tokyo Trust, $500,000; Warehousing, $1,500,000; Tokyo Stock Exchange, $1,375,000; Tokyo Sakura Gumi, $250,000; Osaka Sulphuric Soda, $1,200,000; Tokyo Rope Factory, $125,000; Osaka Shosen Kaisha, $2,500,000; Tokyo Paper Mill, $250,000; Osaka Stock Exchange, $700,000; Fusan Dock, $1,000,000; New Fire Insurance, $2,500,000; Dai Nippon Aquatic Product, $1,500,000; Toyo Sea Product, $250,000; Imperial Hotel, $67,500; Kawasaki Shipbuilding, *$8,000,000.

Railway companies: Iwa (Ise-Izumi), $250,000; Kwansei, *$6,000,000.

Loans marked by (*) are to be raised abroad; of these the loans of the Tokyo Electric Light Company, the Nagoya Electric Light Company, and the Kwansei Railway Company have been settled. Of the $5,000,000 proposed by Nagoya City one-half only will be raised abroad. It is reported that some of the foregoing companies intend to utilize their reserve funds and increase their capital.

MEAT CANNING AND OTHER INDUSTRIES EXPANDING.

The remarkable development of the fish-tinning industry in Japan, as the result of the war, is beginning to attract the attention of foreign capitalists. An American gentleman who recently arrived in Japan has been in communication with Baron Kuki, an imperial court councilor, with the object of investing in the industry and exporting to America. It is stated that crabs and lobsters are best suited for exportation. The industry is very promising.

Owing to the large increase of the business of the Japan Meat Tinning Company, of Nagoya, the working capital, paid up to the amount of $62,500, has proved insufficient, and the company has decided to call another $62,500 from shareholders.

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COTTON-YARN BUSINESS.

Cotton-yarn prices have fallen off, and the yarn exports declined 20,000 bales for the first three months of 1906, as compared with the first quarter last year; but the home demand consumed 37,000 bales more, hence the spinners increased their sales 17,000 bales. Moreover, the future outlook of the export trade is good, while a brisk demand is anticipated in the home market with the carrying out of the rewards to the war veterans.

The smaller spinning companies are being steadily absorbed by the larger concerns. The Kanegafuchi has merged all the mills in Kyushu. Mills in Okayama prefecture are now contemplating incorporation, while many smaller ones in Osaka have already done so. The Mie Spinning Company has succeeded in absorbing the mill in Aichi. The cost will be defrayed out of the reserve fund. It is generally believed that the spinning mills in Japan will be incorporated into three or four great concerns in the course of a few years.

The working of the Settsu Spinning Company, of Osaka, for the past six months has been very satisfactory. The company has sold 5,000 bales at $62 to be delivered up to January next. The net profit for the half year is estimated at $500,000 gold, the largest profit ever made. A site for another factory of 30,000 spindles is being chosen, and the company has decided to extend its third mill in Kizu-mura. Water power from the Kizu River will be utilized.

RAILWAY ENTERPRISES.

Another scheme is on foot to construct an electric railway between Osaka and Nara, with a capital of about $1,000,000. It is anticipated that electric railways will be running parallel with all the principal railway lines in the course of a few years.

The Minomo-Arima Electric Railway Company, capital $2,500,000, has been formed to build a double-track line between Osaka and Ikeda and on to Mina, the maple resort, and Arima. Other new projects are from Takarazuka to Mikage via Nishinomiya, and also from Iguchido to Ikeda.

A general meeting of the Hankaku Railway Company has decided to raise a loan of $1,500,000 from a Japanese capitalist for the extension of the shipping business, etc., of the company. The net profit for the period just closed amounted to $36,000, and after providing for the reserve, etc., a dividend at the rate of 3.2 per cent per annum was declared.

A general meeting of the Sanyo Railway Company adopted a proposal to present $10,000 to Mr. Matsumoto, late president of the company, in recognition of his services. A proposal to construct 140 open steel goods trucks to carry 9 tons each, 10 open steel goods trucks with conductor's compartments, also to carry 9 tons, and 10 7-ton goods brake vans, at the estimated cost of $102,000, was also agreed to. The net profit for the period just closed has been declared at $1,244,800.

PETROLEUM INDUSTRY EXTENDING.

The subscription list of the Hoko Petroleum Company has closed after the shares were over-subscribed about three times. The business of the company is to purchase small oil wells in Echigo, now

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being worked by primitive methods, and with up-to-date equipments work these wells in a more business-like manner.

The result of the working of the Hoden Petroleum Company of Echigo or Niigata Prefecture, for the half-year just ended, has been as satisfactory as ever before. The net profit of the company amounted to $334,900, including a surplus brought over from the preceding period. Of this sum, $15,000 has been placed to the reserve; $225,000 is available for dividend at the rate of 30 per cent per annum; $12,500 is devoted to bonuses of officials and employees, and the balance is carried forward.

NATIVE TOWELS.

EXPORTS MADE TO ASIA, UNITED STATES, AND GERMANY.

Consul Hunter Sharp, writing from Kobe, says that since the monopoly of tobacco manufacture by the Japanese Government many of those engaged therein, finding it necessary to seek new fields, have turned their attention to the towel industry.

The manufacture of towels has shown great development, especially in Osaka, and towels form one of the largest single items among cotton textiles exported. During the Russo-Japanese war the growth of this business was somewhat checked, owing to the increased demand for other cotton textiles for military purposes and the high prices ruling for raw cotton and coal, but since the conclusion of peace the trade shows a tendency to resume its normal condition. After supplying the home demand, the following amounts were exported from Kobe and Osaka during the preceding five years:

Port.	1905.	1904.	1903.	1902.	1901.
Kobe	$470,458	$420,808	$330,931	$269,313	$200,726
Osaka	325,147	259,973	157,476	30,308	17,269

About two-thirds of this finds a market in China and Hongkong. Of the remaining one-third, British India, Australia, and the Straits Settlements come in the order named. Then follow Dutch India, the Philippine Islands, and Russian Asia, while small amounts were even exported to Hawaii and other parts of the United States, and also to Germany. The yarn used in the manufacture of these towels is mostly of 20 counts, and the price ruling at Osaka governs the market throughout Japan. The quotation of to-day per bale, weighing 400 pounds of twenties, being $66.51 for April, $66.46 for May, and $66.01 for June delivery.

A HOUSEHOLD INDUSTRY.

This business is principally conducted in this district as a household industry, mostly by women and children. The earnings of those engaged in this pursuit are from 10 to 12 cents a day for females, and 15 to 18 cents a day for males. The estimated cost of production of 1 dozen towels, size 36 inches by 72 inches, warp with No. 20 and woof with No. 10, weighing 19¼ pounds per dozen, is as follows: Reeling, 9 cents; starching, 10 cents; weaving, 65 cents; bleaching, 20

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cents; red strings (for border), 10 cents; knotting, 9 cents; cotton yarn, $3.15; total, $4.38.

There is only one steam towel factory in this district. This turns out towels not over 13 inches in width, and the entire output is exported to China. There is not much difference between the towels made by hand and those by machinery except that the latter are more uniform in texture.

FOREIGN TRADE.

CHANGING COMMERCIAL CONDITIONS OF ISLAND KINGDOM.

Consul-General Miller also furnishes complete details of the foreign trade of Japan for the first three months of 1905. The aggregates are as follows:

The exports amounted to $48,500,000 gold, an increase of $12,500,000 over the corresponding 1905 period. The imports were $54,500,000, or a decrease of $10,750,000 over the same quarter in 1905. The customs revenue shows a marked increase this year. It amounted to $5,042,700, against $3,847,997 for the corresponding three months of 1905. It has in fact doubled in two years, and if the present rate continues throughout the year the treasury will receive a revenue of about $20,000,000 gold. The staples of exports which showed the biggest increase were silk and its manufactures. Here the figure for this year is $15,500,000, an increase of $3,750,000. Cotton fabrics, on the other hand, declined from $5,666,000 during the first three months of last year to $5,000,000 this year. The staples of imports which show the chief decline are:

	1906.	1905.
Rice	$3,750,000	$8,833,000
Horns, ivory, skins, etc	666,000	2,500,000
Metals, and their manufacture	8,833,000	12,250,000
Tissues, yarns, wool, and woolens	23,500,000	26,500,000
Leather, sole and others	375,000	2,000,000

Raw cotton shows a considerable decrease, while cotton yarn shows an enormous increase. Imports of paper are double those of a corresponding period of 1905, and the same is true of wheat flour. These returns of the first quarter of the year following the war are indications of healthy and successful industrial and trade conditions.

PROTECTION FOR NATIVE CHICKENS.

Consul-General Miller also sends an abstract from a recent address of the Japanese minister for agriculture and commerce who deplored the fact that the Empire's poultry industry was still in a very primitive state.

The minister pointed out that poultry raising was a profitable business, and was admirably adapted as a complementary occupation for farmers. But its growth was slow. In 1888 there were only about 10,000,000 head of poultry in the Empire, and in ten years the number had increased by only 20 per cent. The import of eggs from China was very rapidly increasing. The value of eggs imported in

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1891 was only $15,000, but in 1901 it had reached $650,000. In 1902 the customs duty on eggs was increased to 25 per cent ad valorem from 10 per cent, and the value of eggs imported from China in 1903 fell off to $405,000. By the amendment of the customs tariff to come into force in October next, the duty is increased to 50 per cent and this will further check the import, giving an opportunity to Japan. The minister thought the Government should do its best to encourage farmers.

NEEDS OF EMPIRE.

FOOD PRODUCTS SOUGHT IN CANADA—MANUFACTURED PURCHASES.

Consul M. K. Moorhead, of St. Thomas, forwards a newspaper interview with Japanese Consul-General Nosse relative to the market for Canadian products in Japan, which he believes will apply with equal force to the United States.

Mr. Nosse mentioned that the Japanese were rapidly changing their foods, and instead of a "rice-eating" were becoming a "bread-eating" people. He saw no reason why, when bread and butter were so expensive in Japan and tea so cheap, there should not grow up between Canada and Japan an extensive trade in these commodities, Japan sending to Canada for her bread and butter, and Canada buying in return Japanese tea. Mr. Nosse said: "Since the recent famine in Japan the Canadian Government has sent as a contribution toward the famine fund 500 tons of flour. Looked at in the light of an advertisement, it will be worth millions of dollars to this country. This quantity of flour should bring to at least half a million people in that part of the country the first bread they have ever tasted."

HIGH BUTTER PRICES.

The consul also cited butter, bacon, and ham, canned meats, fish, canned milk, and other food products as Japanese needs. "Take, for example," he said, "butter. At the present time the Japanese buy large quantities of canned butter from France and Sweden and quantities of oleomargarine from the United States. Canned butter from Sweden and France is sold in Japan at 50 cents a pound. Butter made in Japan, which should be very much cheaper, sells as dear as 45 cents a pound. Under the old tariff Canadian butter, of which there were small quantities shipped to Japan, sold at 37½ cents. Now that the tariff is removed, it could be sold to the same advantage at about 35 cents a pound. I understand that butter can be shipped from Toronto to Yokohama at the rate of about 1 cent a pound. When one thinks that the best butter can be bought in Canada in the winter time at the rate of 25 cents and in the spring or summer at 20 cents a pound, it will appear at once that the Canadian farmers, wherever situated, and particularly the farmers in the Northwest, should be able to get a complete monopoly of the Japanese market for this product.

FOOD FOR BABIES—MANUFACTURES FROM TORONTO.

"Take also canned milk. At the present time Japan imports large quantities from both Great Britain and the United States. The demand for this product is sure to grow every year. Canned milk is used in Japan for feeding babies. Fresh milk is with us so much a luxury that it is used only for sick people.

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"There should also be an extensive trade in manufactured goods. Some of the manufacturing establishments in Toronto have already shipped to Japan bicycles, agricultural implements, windmills, and paper. These, I believe, are only the beginnings of what will be a very important trade in manufactured goods. As an evidence of the faith which I have in the future trade between Toronto and Japan, I anticipate that before long the Japanese Government will establish a vice-consulate in Toronto.

"Through being part of the British Empire, Canada has, within the present year, been placed on the same footing in the matter of trade with Japan as Great Britain and the United States. Heretofore goods going to Japan from Canada have been subject to a heavy customs duty, while goods from the United States were admitted in accordance with the rates fixed for most favored nations. This gave the United States a very great advantage over Canada, which advantage she has availed herself of to extend her trade with Japan, but Canada now, in consequence of being part of the British Empire, has been admitted to the position of the most favored nations."

DEMAND FOR SAWMILLS.

Consular Agent E. J. King reports from Hakodate that the development of the railway-tie business in northern Japan should prove a good opportunity for the sale of American sawmill and other woodworking machinery. Mr. King writes:

American railway ties have been shut out of China by the cheaper hardwood ties from Japan. The latter have mostly been hand hewn, but machinery is now being introduced, and quite a number of small steam sawmills are now working. A new impetus has been given to the exportation of Japanese railway ties by the demand from the west coast of Mexico, where they will again come into competition with American ties. Already one shipment of 83,000 ties has left Hakodate for Guaymas, Mexico, and arrangements are being made to ship 700,000 ties this year. They are delivered in Mexico for 56 cents gold each. The most of the sawmill machinery now used on the island of Hokkaido is English make, and American manufacturers of band and circular saws and of other woodworking machinery would do well to pay some attention to this trade opening. For their benefit I submit a list of names and addresses of some of the principal users of woodworking machinery: Riuyemon Zaimoku Kaisha, Hakodate; The Mitsui Bussan Kaisha and The Teshiwo Zaimoku Kaisha, Sapporo; The Hayakita Zaimoku Kaisha, Hayakita, and Mororan Mokuzai Kaisha, Mororan, all on Hokkaido Island, Japan.

PRACTICE OF MEDICINE.

LITTLE ENCOURAGEMENT FOR FOREIGNERS.

Deputy Consul-General John McLean, of Yokohama, in reply to inquiries from parties in this country touching the advisability of practicing physicians removing to Japan, writes:

No one is allowed to practice medicine in Japan unless he holds the Government license. Foreigners desirous of obtaining the license must be residents in Japan. Their application must be accompanied

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by either diplomas from respectable medical colleges or licenses from their own Government, together with applicant's personal history, etc. Upon receipt of such application the Government will investigate the character and standing of the applicant, as well as that of the college, or the nature of the license from foreign Government, and, if found satisfactory, it will grant the license. Such investigation usually takes about six months. The natives here invariably prefer their own physicians, and the foreign community—less than 3,000 people—is amply provided with both American and European doctors. My advice is not to come to Japan unless you have some previous engagement.

FORMOSA.

FAIR QUALITY OF RUBBER FROM VINE.

Consul Fred. D. Fisher, of Tamsui, reports that a rubber-producing plant has been discovered in Formosa, from which it is reported a very fair quality of rubber can be obtained. The Consul writes:

I am informed that no analysis has yet been made of the material. The plant belongs to the Apocynaceæ family, and has been designated "Ecdysanthera Utilis, Hayata & Kawakami, n. sp." The plant is known in Japanese as "Gomuzuru" (gum vine) and in Chinese as "Ranto" (milk rattan). It is described as a trailing plant, attaining a circumference of nearly one foot at the base, growing to a height of 50 or 60 feet, and somewhat resembles the rattan. It is said to be peculiar to Formosa. It grows profusely in the valleys and lower levels in the savage districts in the northern and middle parts of the island. No attempt has yet been made to obtain the rubber in commercial quantities, but I am informed that the discovery has created a good deal of interest among the rubber manufacturers in Japan, some of whom have sent representatives to Formosa to make an investigation of the subject. It is believed that the discovery will lead to an industry of considerable proportions in this island.

Consul Fisher has furnished the Bureau of Manufactures a sample of the crude rubber obtained, which is at the disposal of interested parties in order of application.

INDIA.

A PROSPEROUS YEAR.

GREAT INCREASE OF COUNTRY'S EXPORTS AND IMPORTS—ENORMOUS COTTON GOODS PURCHASES.

During the last three years of prosperous trade British Indian imports of merchandise have increased by 31 per cent and exports of produce by 25 per cent. The London Times publishes the foreign commerce returns of British India for the fiscal year 1905–6, which

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ended March 31. In round numbers the trade amounted to the following totals, with comparisons for the previous four years:

	1905–6.	1904–5.	1903–4.	1902–3.	1901–2.
Imports of merchandise	$363,528,000	$338,708,000	$300,263,000	$278,364,000	$288,097,000
Net imports of treasure	52,558,000	74,944,000	76,404,000	51,098,000	29,665,000
Exports of merchandise	513,902,000	500,762,000	489,137,000	410,245,000	394,673,000
Reexports	11,680,000	10,706,000	10,706,000	9,733,000	10,706,000

The figures for the five years include Government as well as private transactions. If the gross imports and exports of treasure be taken the total trade for 1905–6 stands at $1,041,431,000, another record amount. The contrast between the figures for the two earliest years given in the table and the three latest years is rather marked. The difference is explained by the fact that during the first years the shadow of the last great famine still rested upon the land. Then, with a period of good harvests, exports suddenly expanded after a long period of stagnation and the increased purchasing power derived from more extensive sales of produce soon became manifest in the expansion of imports, and especially of cotton goods. The last two years have not been altogether free from drought and scarcity, while the extraordinary frost and cold in the early part of 1905 severely affected crops like wheat and oil seeds, that are to a considerable extent marketed abroad. The results of these seasonal vicissitudes appear in the export returns for 1905–6, but other factors, such as the abnormal prices of jute, helped to redress the balance.

India's chief imports of merchandise are confined to a very few classes of articles, as the following figures for 1905–6 show:

Article.	Value.	Article.	Value.
Cotton goods and yarn	$137,721,000	Sugar	$25,306,000
Metals and metal goods	74,457,000	All other imports	126,044,000

Thus, cotton goods and yarn constitute about two-fifths of the trade and metals (including hardware and cutlery, machinery and millwork, and railway materials) about one-fifth more. No other article except sugar reaches a total of $10,000,000. In Lancashire and India alike the year 1905–6 will long be remembered for its abounding prosperity, for not only did Lancashire pour into India over 40 per cent of its unequaled output of piece goods, but India also produced enormous quantities of yarn and cloth. The progress of the cotton imports during the last three years has been as follows:

Article.	1905–6.	1904–5.	1903–4.
Cotton manufactures	$126,627,000	$115,336,000	$93,436,000
Cotton twist and yarn	11,094,000	8,076,000	6,959,000

Thus in two years there has been an increase of 37 per cent in imports. All but a small fraction of the business went to Lancashire,

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for, except in colored, printed, and dyed piece goods, foreign countries offer little competition. The yarn trade, which dwindled for many years, has now shown a marked revival, affecting both white and colored varieties. The following table exhibits the course of the cotton piece-goods trade during the last seventeen years and demonstrates the magnitude of recent advances. The figures represent millions of yards.

Average imports.	Gray.	White.	Colored, etc.
1889–90 to 1893–4	1,223.5	368.6	374.2
1894–5 to 1898–9	1,209.8	418.6	351.5
1899–1900 to 1903–4	1,204.5	469.7	430.6
Year 1904–5	1,210.2	584.3	498.9
Year 1905–6	1,348.8	572.8	541.7

Although the Indian mills have been actively producing gray goods, they seem unable to stem the influx of British unbleached cottons. The native mills also compete to some extent in colored goods, but a long time must elapse before they can effectively compete in bleached goods. It may be added that Bengal, where there was so much talk of boycotting British goods, has absorbed cottons to a value of $9,052,000 in excess of that for 1904–5. The average price realized for piece goods in the year just closed was 4.85 cents per yard, as against an average of 4.44 cents per yard during the five years ended 1904–5.

EXTENSIVE PURCHASES IN METALS AND MACHINERY.

Metals and manufactured articles of metal form the next group of importance. In 1905–6 the trade in metals was active, though there was some decline as compared with 1904–5. This falling off was especially noticeable in copper, iron, and tin, while steel considerably improved. The competition of Belgium in steel bars was particularly marked, her sales to India amounting to $2,511,000, as against $330,000 from the United Kingdom. In steel girders, plates, and sheets Belgium was also prominent. The hardware and cutlery business was somewhat smaller. About two-thirds of it is done with Great Britain, the chief participators in the remainder being Austria-Hungary (which has fallen away in 1905–6), Germany, Belgium, and the United States. Machinery and millwork, which showed a great improvement in 1904–5, exhibits a still greater advance in 1905–6, the total value of the imports being $15,962,000. The unparalleled activity of the cotton and jute industries accounts for this increase. In Bombay new cotton mills have been erected and old ones extended, while high-speed machinery has been widely introduced. In Calcutta there was an addition of over 2,000 jute looms in 1905. The rapid extension of the Indian railways and the development of existing lines necessitate increased supplies of permanent way material and rolling stock, so that the imports of railway material must normally increase year by year. The value reached last year was $21,899,000, and of this nearly four-fifths was for State railways. More than 56 per cent of the Government stores supplied to India consists of railway material, while nearly 25 per cent consists of metals, machinery, and millwork, hardware and cutlery, and arms, etc.

PURCHASING POWER OF MASSES.

Some of the imports that are of no great magnitude are nevertheless interesting. In 1905–6 the receipts of mineral oil totaled only

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$7,251,000, as against $10,789,000 in 1904–5. The increasing output of the Burma oil wells doubtless explains this drop. The foreign trade in kerosene is shared practically by Russia, America, and the Dutch Indies. The troubles at Baku probably suffice to explain the decline in Russian supplies from 40¼ million to 7½ million gallons and the simultaneous advance in American oil from 7½ million to 22¼ million gallons. Oil from the Dutch Indies fell away from 27 to 21 million gallons. The imports of woolen goods fell away from $9,976,000 in 1904–5 to $7,884,000 in 1905–6, while those of silk goods declined from $6,862,000 to $6,180,000. The great bulk of the woolen shawl business is in the hands of Germany, which also supplies large quantities of woolen cloth. In silk piece goods Japan and China predominate, while Italy, Austria, and France supply most of the mixed and other silks. Although there have been two considerable reductions in the salt duty, foreign salt has not entered in appreciably larger quantities. The purchasing power of the masses is especially apparent in the huge trade in cotton piece goods and other textiles, and in sugar, dates, salt fish, spices, metal wares, cigarettes, paper, and glassware.

EXPORTS OF INDIAN MERCHANDISE.

The principal exports of Indian produce, etc., in 1905–6 were as follows:

Article.	Value.	Article.	Value.
Rice	$60,490,000	Oil seed	$34,454,000
Wheat and flour	29,782,000	Raw cotton	69,201,000
Tea	28,809,000	Raw jute	55,566,000
Opium	30,707,000	Cotton goods and yarns	46,816,000
Hides and skins	44,723,000	Jute manufactures	40,392,000
Lac	10,317,000		

It will be observed that the bulk of the exports consists of food and raw materials and of half-manufactured or simple manufactures, for cottons comprise mainly yarns, and jute goods are chiefly coarse cloth and sacking.

In 1904–5, owing to an abundant harvest and an American shortage, the Indian wheat exports reached the record figure of 43,000,000 hundredweight, the previous record being only 30,000,000 hundredweight. In 1905–6 a considerable decline was to be anticipated, but the relatively low figure, 18,750,000 hundredweight, was chiefly due to the cold season. The area under wheat has fluctuated greatly. English millers have complained of the impurities in Indian wheat, but the Indian chambers of commerce seem to agree that wheat with only 2 per cent refraction can easily be supplied if the British millers require wheat of this quality. The rice exports also fell away from the record figure of last year, and there was a decline in grain, millet, and pulse. Scarcity in parts of India has no doubt reduced the supply of food grains for export.

TEA AND COFFEE.

The tea planters have been subject to vicissitudes of different kinds—agricultural, commercial, and fiscal—in recent years, but the last year has been much more full of promise. In 1905–6 the total exports

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were 214,000,000 pounds, or about 2,000,000 pounds more than in 1904–5, while the value showed an increase of 5 per cent. This advance in price, the accompaniment, it may be presumed, of an improvement in quality, is encouraging to a long-depressed industry. Moreover, a total reduction of 6 cents per pound in the duty in the United Kingdom should stimulate a larger consumption, for consumption has been rendered stagnant by high retail prices resulting from the onerous taxation. England bought rather less black tea from India in 1905–6, but foreign consumers increased their direct purchases from 43.8 to 47.2 million pounds, the principal buyers being Canada, 14.95 million pounds; Russia, 9.7 million pounds, and Australia, 7.75 million pounds. A heavy fall in exports to Persia is probably attributable to the enhanced tariff. It should be added that a good deal of tea is reshipped from the United Kingdom to Russia, the United States, the Cape, etc. Scientific experiments for improving the cultivation and preparation of Indian tea are in progress. On the whole, the tea outlook is extremely good. The coffee industry, which has also been long depressed, is recovering from the effects of plant disease and Brazilian competition. The exports of coffee in 1905–6—viz, 360,000 hundredweight—were the highest for sixteen years. France bought an increased quantity.

OPIUM AND INDIGO.

In 1904–5 the average price of Bengal opium reached the highest figure since 1861, and in 1905–6 there was not unnaturally a decline in price, while some decrease in the quantity of the exports also occurred. The total value of the trade, $30,708,000, is still large, in spite of the competition of home-grown opium in China.

A bad season, a reduced area under indigo cultivation, and the increasing competition of synthetic indigotin have again diminished the exports of the natural dye. The only cheerful feature was that the shortage of supply forced prices up to a higher level. The prospects of the planters have been improved by the success of the recently introduced Java-Natal seed, which is said to increase the quantity of the output by 50 per cent and to yield a superior quality. Government is continuing its grants for the employment of experts in indigo cultivation and manufacture. In some quarters the opinion is still held that the dyeing properties of natural indigo are superior to those of the synthetic indigotin for certain classes of work. But the reduction of the area under indigo from 1,688,000 acres in 1895 to 476,950 in 1905 and another reduction of 20 per cent in 1906 suggest that the planters are not very sanguine. Germany is exporting more and more synthetic indigotin and capturing new markets. It appears, however, that vegetable indigo pays to produce at current prices and the struggle may go on for some time. Nevertheless, the drop in the value of the exports of Indian indigo from $17,373,000 in 1895–6 to $1,903,000 in 1905–6 is a serious loss to India. Last year Egypt and England were the only large buyers of Indian indigo.

IMPROVED COTTON FIBER.

The government of India has been cooperating with the British Cotton Growing Association with the object of improving and extending the cultivation of cotton in India. For several years the govern-

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ment has been actively conducting experiments for the improvement of the fiber—by hybridization, by the introduction of exotic varieties, and by encouraging the use of selected seed, careless use of mixed seeds having been a main cause of deterioration. After many failures in regard to the planting of exotic cottons, promising results have at length been obtained from certain Egyptian varieties sown on irrigated land in Sind. This cotton has fetched from 18 to 20 cents per pound in England, and Sind will have 6,000 acres planted with it in 1906. Endeavors are also being made to improve cultivation in respect of implements, manures, etc. A cotton specialist is to be appointed. Indian cotton cake has been proved to possess high value both as a manure and as a feeding stuff for cattle, but it has to be exported because the Indian raiyat will not pay the requisite price. The export business in Indian cotton seed has now become considerable. The exports of raw cotton, like those of wheat, are greatly affected by the condition of the crops in America and elsewhere, but Japan is a large and constant buyer of Indian cotton. The total of raw cotton exports in 1905–6 was 7,394,559 hundredweight, of which Japan took 2,230,989 hundredweight, Germany and Belgium together 2,510,590 hundredweight, Austria-Hungary and Italy combined 1,422,619 hundredweight, and England only 370,917 hundredweight. Prices were somewhat below those of 1904–5. The area under cotton in India has increased from 14½ million to 19 million acres in three years, and in the future India's exports may be expected to advance in both quantity and quality, unless the native mills, which now consume one-half the production, greatly extend their demands.

COTTON MILLS FINALLY BECOME PROFITABLE.

After ten years of depression arising from drought, famine, and plague in India. and from exchange difficulties and political troubles in China, the Indian cotton mills have had a burst of prosperity in 1905, though the price of raw material ruled high. Spinners, who had especially suffered in the bad years, had a record sale of yarn, while weaving concerns also enlarged their output. Spinners and weavers alike reaped high profits. The mills are now producing a better class of piece goods, partly by the use of Lancashire yarns. It is reported that most of the mills have sold cloth forward to the end of 1906, and that 12,000 new looms are being erected. The result of the general activity has been a record export of cotton yarn, valued at $40,190,000, and of piece goods, valued at $6,035,000. China bought 282 million out of 297½ million pounds of yarn exported, while East Africa, China, Aden, and the Straits were the chief purchasers of piece goods.

RECORD JUTE CROP BRINGS HIGHER PRICES.

The abnormally high price of jute fiber—far surpassing all records—was the dominant feature in the trade of Calcutta in 1905–6. It is estimated that the cultivators reaped profits of from $24,000,000 to $39,000,000 beyond those of the previous season. The demand for jute far exceeded the supply, although the crop was a record one. Were it not that jute is the cheapest of fibers, consumption must have been affected by the extraordinary prices. The exports amounted to 14,581,307 hundredweight, valued at $55,566,000. The largest buyers

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were the United Kingdom (6,298,250 hundredweight, partly for reexport), Germany (2,724,950 hundredweight), United States (2,012,850 hundredweight), France (1,573,175 hundredweight), and Austria-Hungary (872,520 hundredweight). The average price of the exported jute was 25 per cent higher than in 1904–5. Government is endeavoring to improve the cultivation of jute, and also to extend the area, especially in Behar. A jute specialist has been appointed. Great complaints have been made of the fraudulent watering of the prepared jute fiber with the object of increasing the weight. By this process, it is alleged, the weight is sometimes increased by 20 to 25 per cent, while the fiber is weakened and discolored. Legislation to prevent this fraud is in contemplation.

AMERICA FINE MARKET FOR JUTE CLOTH.

While the cotton mills of western India were working to their utmost capacity, the jute mills of Bengal were also reaping a golden harvest. The shipments of gunny bags were over 233,000,000 in number and of jute cloth over 658,000,000 yards, while the total value of the exported manufactures was $40,392,000. The United States and Argentina together buy seven-eighths of the exported jute cloth, while Chile, Australia, the United Kingdom, and China are the principal purchasers of sacks. For three years the trade in cloth has exceeded that in bags. Calcutta, with its 23,000 looms, is now the largest jute manufacturing center in the world. The industry is extremely profitable, and the output of jute goods is perpetually extending. The strength of the Calcutta market is mainly in hessians. In coarse goods Calcutta has beaten Dundee, and this is not surprising considering her proximity to the jute-producing districts and to the great Eastern markets. It is doubtful whether India has any advantage in labor, for though cheap nominally the supply of efficient labor is scarce and work is very irregular in the summer months. India's direct trade with Argentina and the United States has greatly increased, and considerable quantities of jute goods go to the latter indirectly through Great Britain.

OIL SEEDS, SHELLAC, ETC.

The year was a poor one for this important branch of trade, the total exports being only 17,583,614 hundredweight, as against 26,873,744 in 1904–5. Linseed fell away by nearly one-half and rape seed by about three-fifths. The only noteworthy increase was in cotton seed, the exports of which rose from 2,528,900 to 3,891,000 hundredweight. Prices of seeds were on the whole higher, but a very low level had been touched in the preceding year.

The extraordinary development of the shellac trade in recent years continued in 1905–6, the quantity exported being 263,331 hundredweight, as compared with 228,979 hundredweight in 1904–5. The average price, however, was lower. In the year just closed the total value reached the unprecedented figure of $10,317,000. The United States bought one-half of the total shellac, while England and Germany took most of the remainder.

Some of the exports here classed as minor are not without importance. Thus, owing to short supplies in Europe, a brisk trade was done

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in raw wool at very remunerative prices, and a total value of $6,866,000 was exported. India formerly purchased large quantities of coal, but in 1905–6 her sales were 837,250 tons, while she bought only 180,000 tons. Her chief customers for coal are Ceylon and the Straits Settlements.

The rapid development of railways and irrigation and the extension of dock accommodation at Bombay, Karachi, and Rangoon by giving greater transport facilities must lead to an expansion in trade. The Government has, during 1905–6, concluded conventions with Japan, Bulgaria, and Switzerland, securing most-favored-nation treatment for India. The new commerce and industry department is active, and a special committee has recently reported on the improvement of Indian trade statistics, especially with regard to showing the countries of consignment of imports and the ultimate destination of exports. An imperial customs service has been inaugurated to secure a more uniform administration and less friction.

ADULTERATION OF JUTE.

The adulteration of jute has been the cause of much complaint on the part of the importers both in this country and in Great Britain for the past two years. The present season's crop of jute has touched the highest price reached in fifty years, marking $141 per ton in the Dundee market, but the adulteration and wetting of jute before shipment has been more serious than ever before. This has led the Bengal Chamber of Commerce to take up the question, and it has drafted a bill entitled "An act for the prevention of adulteration of jute and for the suppression of certain practices in the trade."

The Bengal association, in a letter on the subject, asserts that there is a unanimous expression of opinion that legislation alone will put an end to such malpractices, and the bill prepared further represents the general consensus of opinion on the subject. Other chambers of commerce in India are also supporting the movement to bring about such legislation. New York importers express the hope, according to the Commercial of that city, that the bill will become a law. During the past year jute has been received in this country in very bad condition. It was shipped while wet, and owing to the heat in the steamer's hold, sweated, and when opened in New York the center of the packages was found to be badly rotted.

DIRT WITH WHEAT.

STRANGE PROCEDURE FOLLOWED AT BOMBAY.

The India correspondent of the Times makes some horrifying statements by way of explanation of the bitter protests made by English millers on account of the admixture of dirt with wheat imported from India. This writer says:

In Canada, the United States, Argentina, and probably also in Egypt and Russia, the wheat is cleaned in thrashing machines. In India and throughout the East it is thrashed by being trodden out under the feet of oxen in the open field. It stands to reason that by

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this method there must be a large admixture of dirt, of simple field earth, with the wheat. The recognized proportion of dirt allowed by English millers is 5 per cent. Hence it is the common practice of Bombay merchants engaged in the wheat trade to keep in their warehouses on the Port Trust, Bombay, two sets of machines. All their wheat as it arrives in the warehouse is sampled. That which contains more than 5 per cent of dirt is first put through the cleaning machine to get rid of the dirt. This cleaned wheat is then put through the mixing machine, where it receives its exact 5 per cent of dirt and is then ready for the wheat market in Europe.

The correspondent says that it is this miserable system which prevents elevators being erected in Bombay and the wheat as it arrives by train being delivered direct on board the steamers, although the larger flour mills in Bombay fully recognize the value of elevators, each having their own wheat elevator for their own consumption. But, he adds, the reform needed is for the millers in Europe gradually to reduce their allowance of dirt until it is abolished altogether. "As long as millers in Europe deduct 5 per cent for dirt, so long will they get it. Eastern wheat shippers can not be expected to lose 5 per cent on each shipment, and therefore they add the deficiency of dirt in each sample as it arrives."

JUTE ADULTERATION.

The adulteration of jute is arousing considerable attention in India, and a government inquiry is being made into the subject. In his letter to the revenue department the secretary of the government of Eastern Bengal and Assam recalls the history of the past three years' proceedings in the matter. "It is notorious," he states, "that when the prices of jute range high water and sand mixed with jute are sold as jute in large, even in enormous, quantities. During the past year laboratory inquiries have shown the amount of moisture that was contained in various samples of jute, ranging from a minimum of under 10 per cent to a maximum of over 50 per cent. The extraordinarily high percentages of moisture in most of the samples indicate very forcibly the enormous profits which are annually made by adding water to jute and selling it as jute; and it is of course to be remembered that the water in many cases ruins the jute with which it is admixed."

STRAITS SETTLEMENTS.

NOTABLE INCREASE IN TIN AND OTHER EXPORTS.

Consul-General David F. Wilber transmits tabulated statements showing the amount of the principal Straits Settlements exports from the ports of Singapore and Penang for the first quarter of 1906, with the comparative amount of these products exported during same period in 1905:

In some products there has been a notable increase over last year in shipments to the United States, while others show a decrease. Gambier records an increase of over 5,000,000 pounds; sagos, 3,300,000 pounds; black pepper, nearly 2,000,000 pounds; rattans, nearly

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1,400,000 pounds; a small increase in rubbers, 350,000 pounds; cocoanut oil, 400,000 pounds; tin, 180,000 pounds, and nutmegs, 130,000 pounds. A falling off is revealed in gutta-percha of about 163,000 pounds; white pepper, 175,000 pounds; gum copal, 420,000 pounds; tapiocas, 7,000 pounds; coffee, 96,000 pounds, and pineapples, 10,000 cases. The largest decrease being in gum jeletong, which was over 1,200,000 pounds.

The total shipments of tin to all countries shows an increase of nearly 900,000 pounds. A notable increase is found in sagos, there being over 3,000,000 pounds increase in shipments of all kinds, and a notable falling off in rattans and tapiocas, the former being nearly 3,000,000 pounds short of last year and the latter about 4,000,000 pounds.

ASIA MINOR.

OPIUM-POPPY CULTURE.

TURKEY SUPPLIES AMERICA WITH VAST SUPPLIES OF THE DRUG.

Consul Thomas H. Norton writes a comprehensive article on the culture of the opium poppy in Asia Minor with processes of extraction and commercial handling. This data he collected for an American manufacturer who was visiting Smyrna. Mr. Norton is of the opinion that the United States offers an admirable field for opium-poppy raising, the importance of the product being evident by the statement that the American imports of opium amount to about $1,200,000 annually.

The total opium crop of Turkey for the past ten years has been as high as 11,000 "couffes" or baskets of 165 to 175 pounds each (the crop in 1902), but the crop of 1905 totaled only 3,500 baskets. The average annual exportation of opium from Smyrna amounts from 200 to 225 tons, ranging in value from $1,400,000 to $1,600,000. Mesopotamia also averages $500,000 in opium exports per year. Another opium region is Malatia, near Harput, where the best grades assayed 10 per cent morphine. From Samsoun, in northern Asia Minor, about 70 tons are exported annually. In European Turkey the opium is marketed at Salonica, where some grades have assayed as high as 13 per cent morphine. A large proportion of Turkey's opium production is exported to the United States.

Mr. Norton suggests that for poppy culture in the United States the numerous upland regions skirting the Appalachian range and adjoining the Rocky Mountain and coast regions offer climatic conditions closely resembling those which exist in the favored sections of Asia Minor. In Turkey the old-time methods of opium-poppy culture are still in vogue, which the consul believes American ingenuity could greatly improve upon. The American Department of Agriculture has already been experimenting with growing the opium poppy in Vermont, Texas, and California, the greatest success having been attained in the first-named State. They announce that they have already been successful in producing morphine directly from the poppy and are looking for further favorable results from experimental work. The

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Department of Agriculture at Washington will furnish inquirers with full information on the subject. The detailed report on poppy culture in Asia Minor can be consulted at the Bureau of Manufactures.

CANNING BUSINESS.

PRESERVED GOODS AND CAN-MAKING MACHINERY IN SMYRNA.

Consul Norton, in reporting that the canning trade of that part of Turkey is still in its infancy, says:

There are, in this district, three or four establishments engaged, on a small scale, in the manufacture of preserves for local consumption. These preserves include a small variety of vegetables, fruits, and sweetmeats. Of these, the manufacture of the sweetmeats peculiar to the Orient is the most extensive and promising. It has practically driven out the various European imitations which formerly came hither in large quantities. There is also a growing exportation of these sweetmeats to the United States and other countries.

Some years ago a tinsmith imported from England a machine for stamping round tin boxes for the local canning trade. He failed to succeed owing to the competition of handmade goods and to the then limited demand for such wares. Conditions have not changed materially since then. The canning trade is still limited and the local provision by hand labor for supplying the necessary containers is far in excess of the demand. There is, consequently, but a slight opening for can-making machinery at present. It is not unlikely that in the early future the canning industry here may be widely extended, for there is a steady consumption of imported canned foods.

Canned vegetables and fruits come chiefly from France and in limited amount, as might naturally be expected, in view of the abundance of truck gardens and orchards of every sort which abound in this favored climate. Canned meats come in greater amounts. France sends potted game and pâté de foie gras. The United States furnishes lobster and tongue valued annually at $1,000. England sends about the same amount of various meats. Large quantities of canned fish are received, especially from Portugal. With a sufficient amount of enterprise Smyrna should become as notable a center for preparing canned fruits and vegetables of fine quality as is southern California. Climatic conditions are much the same.

The following dealers in hardware and machinery at Smyrna can advantageously be communicated with in regard to securing a representative in case of possible openings for the sale of canning machinery: Les Fils de S. Nicholaïdes, Edward Clarke, and Rankin & Demas. Address by British open mail.

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AFRICA.

SOUTH AFRICA.

TRANSVAAL GROCERY TRADE.

STRONG DEMAND FOR PROVISIONS—ACTIVE COMPETITION.

Consul John H. Snodgrass makes a report from Pretoria saying that the Transvaal commercial brokers had a good start in the early months of winter, owing to grocery and provision stocks being considerably reduced. The consul continues:

It is anticipated that it will take another six months for stocks to be replenished and reach a normal state. There is a shortage of flour, hams, apple rings, etc. As regards apple rings, the shortage is in American lines, which have made good with importations from Australia, that are 1 cent per pound cheaper, viz, 19 cents per pound in tins containing 20 pounds. One satisfactory trade feature is that the pound tins of corned beef, originally introduced for the military, have been sold at last, which is a fair indication that the old Government stores are gradually disappearing.

A Johannesburg paper says that the agent of a big Chicago firm has taken up quarters in that city, and that a representative of a competing firm will shortly arrive. The older firms of British biscuit makers are bestirring themselves, several influential representatives being expected, evidently to organize competition with the Irish, north of England, and Australian firms, all of whom must have increased their South African sales considerably during the past three years. The new season's jams are arriving in excellent condition, and fresh fruit, comprising peaches, plums, nectarines, pears, apples, and grapes, are reaching here in fine condition. Another trade that is increasing through proper attention is that of preserved fish, such as haddocks, bloaters, kippers, and salmon, as firms are now making a specialty of preserving them for the South African markets. They personally, or through their own agents, attend to the shipping of the same at the British ports, and again in a similar manner in South Africa, where some have already opened their own establishments.

WELL-DRILLING METHODS.

COMPETING ALL-METAL MACHINES IN CAPE COLONY.

Consul-General H. L. Washington submits a report on drilling machines in South Africa and the local efforts to supplant the outfits from America. He writes from Cape Town:

Drilling for water in Cape Colony for stock breeding and purposes of irrigation was first undertaken by the government for the farmers

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at a minimum cost. The government owned the drilling machinery and trained men for operating it. Now the government encourages well drilling by giving subsidies equal to not more than one-half the cost of drilling the wells, and the work is undertaken by contractors who have their own drilling machinery and employ most of the men previously trained by the government for operating the machines. The equipment used for drilling is mostly the jumper drill type. Several of these are of American manufacture.

A Cape Town concern is now manufacturing a drilling machine which is proving a dangerous competitor. The total cost is $2,263, including boiler and engine, or $1,533 without power plant. It is constructed entirely of metal, thereby resisting the weather. [Picture and description of this machine will be loaned on application to Bureau of Manufactures by builders of drilling apparatus.] It is thought that the American machines, having considerable wood in their construction, do not withstand the weather as well as the all-metal ones, and our manufacturers might give this attention. The average depth to which it is usually necessary to drill is about 300 feet, at an average cost of $3.89 per foot. The statement is made that the new Cape Town machine has drilled as much as 126 feet in sixty-four hours, all rock drilling. It is designed to drill a 6-inch hole to a depth of 500 feet with a steam-power percussion drill.

The owner of large farm properties tells me that he finds American-made drilling machines, and also windmills, preferable to those of British manufacture, because the parts are standardized, making it easy to replace parts, and that the claim of the British manufacturer that his machines were supported in higher prices by greater lasting powers was not a good contention. The American machines lasted quite long enough, and better results could be obtained by replacing them every five or six years with newer types, their lesser cost permitting this to be done.

PROGRESS OF WATER BORING.

It appears, from a report just issued by Bernard Ritso, inspector of water boring, that during the past twelve months irrigation by bore hole had made more progress than in any previous year. During the past two years, with the new system of contract under Government subsidy, 1,154 bore holes have been sunk by contract, producing a daily flow of something like 27,750,000 gallons. At the same time the Government has operated other drills. The total number of holes in which water was found during 1905 was 337, and these are estimated to yield by natural flow and by pumping over 7,500,000 gallons. In 1904 the estimated result from Government operations was over 8,500,000 gallons, so that in the past two years the yield of water from the holes sunk by contract under Government subsidy and by Government water drills has increased the available water supply of Cape Colony by about 44,000,000 gallons per day, and the practical advantage by the increased use of these machines is demonstrated.

GOVERNMENT FOREST SCHOOL.

The possibilities of forestry in South Africa have led to a number of young men going to Europe, and latterly to America, to study at a cost of about $5,000 for the course, and then they are obliged to learn

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much that is of no practical value to them in the climatic conditions prevailing in South Africa. These considerations have led to the establishment of the South African Forest School, with a two-year course, where the cost of training to the student will be about $1,250.

Cape Colony now pays on an average $2,500,000 yearly for imported timber, while the total South African timber bill is computed to average not less than $7,500,000 yearly. The course of training at the new school will comprise practical work on the government's experimental reservation at Tokai, near Cape Town, where are grown practically all known species of South African trees.

TRANSPORTATION DISADVANTAGE.

BRITISH REMONSTRANCE AGAINST GERMAN SUBSIDIES.

The British and South African Export Gazette and the managing director of a British steamship line complain bitterly of the handicap under which British manufacturers labor in the cultivation of their trade with South Africa, owing to the payment of subsidies to foreign steamship lines and other state assistance. Speaking on the subject, Mr. Lloyd, managing director of the Bucknall Steamship Line, said:

"German subsidies and state assistance have driven British shipping from the ports of East Africa. If Germany were to pass a law forbidding British vessels to trade with East Africa our Government would certainly interfere in the matter, yet the weapons used are just as effective as any law could be. The German Government reduces the railway charges to manufacturers in Germany, who ship right through to Africa by German steamers. German manufacturers, therefore, are practically bound to patronize only German lines. Besides that advantage, the German East Africa Steamship Line enjoys a government subsidy of $400,000 a year, sufficient to make all the difference between working at a profit and at a loss."

The Portuguese Government also pays subsidies to provide satisfactory shipping facilities between Lisbon and ports of East and West Africa. To one company the Lisbon Government pays about $13,000 for each round trip.

Great Britain pays subsidies in certain instances, but it does not appear to subsidize a line and give lower freights at home to the merchants who compete with the German line to East Africa.

NORTH AFRICA.

VALUE OF EGYPTIAN DONKEYS.

ADVISABILITY OF IMPORTATION INTO UNITED STATES.

Consul-General Lewis Morris Iddings, of Cairo, in reply to parties in Montana, in regard to the advisability of shipping jackasses from Egypt to America for breeding purposes, writes as follows:

Egyptian donkeys may be classified in three categories:

1. The Assiouti mount, which is the best donkey in Egypt and reaches prices between $200 and $1,000.

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2. The upper Egypt breeding donkey, which is of a good race, used for riding as well as breeding purposes, at a price varying from $50 to $200.

3. The poor class of burden donkeys, found all over Egypt, and costing from $10 to $50.

For riding as well as breeding the upper Egyptian donkey is the best. Its skeleton is thickset, the hindquarters are well shaped, and the shoulders are the strongest. It is usually white, and stands about 4 feet 10 inches at the shoulder. It is used to hot as well as cold weather, and is fit for export. It would cost approximately $125 apiece to ship these jacks from Egypt to New York, as each one would have to be placed in a separate box and supplied with sufficient food for the voyage, which, with the probable necessity for transshipment at Naples or Liverpool, would occupy a considerable amount of time. Several have been shipped from Egypt to South Africa and to the Philippines, and have done well in both places. They stood the sea journey well.

As regards the time of year to come for purchase, the period of High Nile, from September 1 to November, would probably be the best, as the animals would then not be scattered in the fields, but would be gathered in the villages.

MADAGASCAR.

FRENCH EDUCATIONAL STEPS.

Consul W. H. Hunt sends from Tamatave the summary of a decree reorganizing the manual-training school for natives in Madagascar. He considers it fair evidence of French colonial policy with regard to the education of the natives. This school is now placed under the direction of the chief of the educational department for the first time. Its aim is to instruct natives who show an aptitude for such work as foremen in the manual-training branches of the district schools and in the industrial enterprises of the colony.

Consul Hunt says that France deserves great credit for the progress she has made in her efforts to educate the natives in European knowledge and methods during the ten years of her possession, as well as in her willingness to give those who are competent lucrative employment.

As a matter of policy and self-defense, perhaps, the students of the missionary schools, both Catholic and Protestant, are excluded from enjoying the privileges of the Government manual-training school. These schools, however, have taught manual training for some years in different localities, but long before the advent of the missionaries the natives practiced many of the useful arts in a rudimentary way.

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OCEANIA.

AUSTRALIA.

TRADE AND INTERNAL REGULATIONS.

SHORT FRUIT CROP—GOVERNMENT OWNERSHIP OF STREET RAILWAYS—NEW COMMERCE LAW.

Consul-General Bray reports from Melbourne, Australia, on a number of interesting topics, as follows:

It has been decided to prohibit the importation into the State of Victoria, Australia, of bananas on the stalk. For some time past the officers of the department of agriculture have feared that there is a danger of introducing the fruit fly to Victoria through the means of this fruit. At present when bananas are landed they are examined by an inspector under the vegetative diseases act. "Rejects" are put aside and cow keepers and others are permitted to take them away, and it is by this means that it is feared the disease may be introduced. The determination is to insist that bananas shall for the future be imported in cases only, as is the practice in the State of South Australia.

SHORTAGE IN FRUIT CROP.

There is a considerable shortage in the fruit crop of Australia this season, owing to the unseasonably dry weather experienced in the producing States. To March 30 the shipments to England and the Continent show a large decrease. For the present year the number of cases shipped is 127,661, against 248,266 in 1904 and 300,805 in 1903. A few weeks ago it was anticipated that the production of raisins would show a heavy surplus, but after prolonged dry weather considerable rain has fallen at the drying season, and it is now expected that there will not only be no surplus available for export, but an insufficient supply for home consumption.

WINES FOR CANADA.

Some months ago a communication was received by the Australian government from the government of Canada suggesting that there was an opening in the Dominion for Australian wines. In response to this suggestion the Australian minister of customs has undertaken to see that a representative consignment is sent to Canada, and officials are now engaged in selecting hock, claret, and two sweet wines, from which the consignment will be eventually made up.

PARCELS POST AND MONEY ORDERS.

Arrangements have been made between Australia and Japan by which parcels may be exchanged by post. The rates from Australia

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have been fixed as follows: 1s. 5d. (34 cents) first pound; 3d. (6 cents) for each additional pound up to 7 pounds; over 7 pounds and not exceeding 8 pounds, 5s. 3d. ($1.27), increasing by 3d. (6 cents) per pound until the maximum (11 pounds) is reached. Arrangements have also been made between Australia and New Caledonia by which money orders ranging up to £20 ($97.33) in value may be exchanged. The parcels-post rates between Noumea and Australia have been reduced, the "sea transit" charge from Noumea being cut down from 3 francs to 1 franc, and the rates from Australia for the future will be 1s. 10d. (44 cents) for the first pound and 3d. (6 cents) for each additional pound.

GOVERNMENT OWNERSHIP OF STREET RAILWAYS.

The government of the State of South Australia and the directors of the Adelaide Tramway Company have arrived at an agreement for the purchase by the government of all the tramways in the city of Adelaide for the sum of £280,000 ($1,362,620). The conditions are that, subject to parliamentary approval of the agreement and the shareholders' acceptance of the terms, the government guarantees to pass the agreement during the next session of parliament and also to introduce a bill for the municipalization of the system and the conversion of the lines to electric traction. This will provide a large opening for American electrical material.

PROGRESS IN ELECTRICITY.

There are some 50 miles of electric traction in operation at present in Australia, the lines being short ones in Melbourne, Sydney, Hobart, Ballarat, and Bendigo. The further extension of electric lines is under consideration more or less by the State governments of most of the States, especially Victoria, New South Wales, West Australia, and South Australia (where the electrifying of the street-car lines of Adelaide is contemplated). In Victoria many of the suburban municipalities have under consideration the construction of lines, and generally much interest is being displayed in that direction. There is no doubt that in the near future the number of lines at present in operation will be very largely increased both in the way of new lines and the conversion of old ones.

Manganese and decarbonized steel, and copper or motor wire are not manufactured in Australia, the supplies coming from the United States, England, and Germany, with America leading. Motors are manufactured to a small extent, the name of the leading firm being on file at the Bureau of Manufactures and will be furnished on application. The eleven leading foundries and machine shops and eight electrical firms of Melbourne are also on file and obtainable from the Bureau.

Capital for industrial enterprises is plentiful throughout Australia, the banks, through excess of deposits, having to reduce the rates of interest twice during the past two years, allowing at the present time 3 per cent per annum, with a prospect of a further reduction to 2½ per cent.

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INDUSTRIAL ADVANCEMENT.

ABUNDANT YIELDS THIS YEAR FROM THE SOIL.

Consul F. W. Goding, of Newcastle, supplies several reports bearing on the commercial, agricultural, and industrial changes going on in that part of Australia. He writes:

The resources of northeast Australia are slow in developing. The farmers grow maize in the old-fashioned way. For the year ended March 31, the north coastal division of New South Wales had under cultivation 105,418 acres and 15,568 acres for dairying. The sugar cane area was 11,525 acres, averaging 2.5 tons. About 20,000,000 pounds of butter and 3,138,000 pounds of bacon and hams are produced annually. The maize crop in Queensland this year is a record one. The 130,000 acres will average over 30 bushels, giving a total of nearly 4,000,000 bushels, with probably 1,300,000 bushels for export.

The increase of pineapple cultivation and the fine crops that have been gathered this season have made some further enterprise in preserving them for the export trade necessary. The Australian markets have been glutted, leaving a large surplus. The growers have formed a company and large canning works are to be erected in Newcastle. The canning of pineapples is also likely to become an important industry in Brisbane.

THE TIMBER TRADE.

As for timber, the total area of forest in the land board district of Grafton, New South Wales, which comprises the greater portion of the north coast, is 1,436,746 acres. About 1,200,000 acres of the total have been recommended by the forestry department for classification as permanent forest reserves. The timber trade is an immensely profitable industry on the north coast. The Clarence River alone a little while back was sending 2,500,000 feet annually to the order of the New Zealand Government. If those very large orders for railway sleepers for China and Japan, which the New South Wales commercial agent in the East has written about recently, are secured, the bulk of them will be supplied from the north coast.

OPAL MINING.

The White cliffs opal field is having a steady output of the better grade. One gem obtained 6 feet from the surface weighed 13 ounces and realized $500. The opal miners claim that the price for the gems is controlled by a ring and that in consequence fair value is not obtained. The Opal Miners' Protective Association will therefore appoint an agent, to be sent to Germany and America, and will open up show rooms in Chicago for the display of polished opals. Lapidaries will be engaged there for cutting rough opal. When the market is firmly established in America depots will be opened in Paris and other Continental cities for the sale of the gems. The local board of directors will take charge of all opal mined and forward them to the head depot in Chicago in monthly consignments, returns being forwarded each month to the miners.

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WIRE FENCING.

GREAT QUANTITIES OF NETTING NEEDED.

Mr. H. D. Ross, commercial agent for Canada in South Australia in a recent report writes as follows regarding the use of wire netting in that country. What he says will have as much interest with American as Canadian manufacturers:

The government of one of the Australian States is calling for tenders to supply wire netting for rabbit fencing to the value of $100,000. It has decided to submit the business to public competition. The quotations relative to values are as follows:

	Price.		Price.
42 x 1½ x 17	$194.66	42 x 1½ x 17	$161.79
36 x 1½ x 17	175.20	36 x 1½ x 17	140.56
42 x 1½ x 18	152.37	42 x 1½ x 18	125.26
36 x 1½ x 18	130.42	36 x 1½ x 18	107.06

These prices must not in any way be considered as quotations for supplies, but merely as a guide to indicate the difference in value of the various grades, 42 x 1½ x 17 stands at the head of the list, but it is claimed to be the cheapest in the end. South Australia adopts 36 x 1½ x 18. Naturally this demand in one direction for wire netting must tend to influence the market. Wire netting of the above sizes is duty free and should not be confused with wire fencing, which the customs have decided as being dutiable at 20 per cent ad valorem. There are several wire-netting factories in Australia, one having a very extensive and modern plant, but local makers have to import the raw material.

GENERAL PROSPERITY.

Advices from Sydney, Australia, are to the effect that the autumn conditions in that country are as satisfactory as could well be desired. The Commonwealth exports show a great increase, while there is a slight increase in the imports. The increase in the exports for two months this year amounted to $23,000,000, while the increase in the imports for the same time was only about $1,500,000. The increased exports included over $6,000,000 in wool, and over $3,000,000 in wheat and flour. There was an increase in the production of wool in 1905 of over 200,000 bales.

Approximately, New South Wales holds about 52½ per cent of the sheep, 28 per cent of the cattle, 30 per cent of the horses, and 31 per cent of the swine in the Commonwealth, and for 1,500,000 people they constitute a fairly substantial possession. At the close of 1905 there were in that State 290,000 more cattle than before the drought of 1902, 20,000 more horses, and 45,000 more pigs. The sheep had regained last year nearly 13,000,000 of their lost numbers, but they were still 2,263,000 below the level of 1901.

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TARIFFS.

CHANGING RATES.

GERMAN EMPIRE.

DIFFERENCE IN RATES ON CORN AND ITS PRODUCTS.

Consul-General Hugh Pitcairn, of Hamburg, reports that the local newspapers recently published the following article, being a memorandum received from parties interested in the local grain trade and bearing upon the large difference in the rates of duty on maize and maize products under the new customs tariff:

The firms interested in the corn import business are sustaining a severe loss by reason of the fact that corn products are admitted here free of duty, and should the customs authorities not take cognizance of the fact that the favoring of a manufactured article in preference to the raw product is impracticable, it is to be feared that the maize trade will be severely impeded or perhaps entirely crippled. Since March 1 the duty on raw corn has been increased from 16 marks ($3.81) to 30 marks ($7.14) per ton. Since last year efforts have been made to import various North American corn products, which, however, have failed, for the reason that the customs authorities charged on such goods the duty provided for corn meal. Such a duty on corn meal still exists, amounting to 102 marks ($24.28) per 1,000 kilograms (2,200 pounds) according to the new tariff. The customs authorities, however, admit under the heading "corn waste" and "corn bran" products which really only deserve the denomination "bruised corn" or "corn meal."

AMERICAN ENTERPRISE.

Two large syndicates in America are purchasing approximately 27,000,000 bushels of corn for the manufacture of starch, and the residue, from which starch is said to have been extracted, may be considered corn waste, but not the article now imported as such, and this being done in such quantities that one may conscientiously assert that the same is expressly manufactured for exportation to Germany. Such export business is a good thing for the Americans, because about only 94 marks ($22.37) are at present paid for raw corn, exclusive of duty, whereas the corn product, thoroughly prepared for feeding purposes, delivered in uniform bags, is furnished at a price of about 110 marks ($26.18) per 1,000 kilograms (2,200 pounds). This means that the duty on corn is being withheld from the German treasury, and besides the Americans earn the wages for grinding the corn, which otherwise would have fallen to the German milling industry. Special brands are introduced as corn-seed bran, and various custom-houses allow the specially marked bags to pass without further examination.

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THE QUESTION OF WASTE.

It has been proven that products are now being imported here which contain over 50 per cent of starch, whereas the percentage of starch in corn is only 68; consequently only a small percentage of starch has been extracted, and it may conscientiously be asserted that the so-called "corn waste" or "corn bran" may again be utilized for technical purposes, perhaps for the manufacture of starch.

The extraordinarily large quantities of so-called corn waste handled prove how lucrative this business is. For instance, there are 4,000 tons expected per steamship *City of York*, and further, 3,000 tons in about eight days. Furthermore, sales in this lucrative article are already effected in larger lots for future deliveries until September of next year.

In other countries—for instance, in Sweden—high duties are imposed upon the article; only Germany admits the same free of duty. In a short time other corn-producing countries will, under existing conditions, take up the manufacture of corn waste, so that it is absolutely necessary that steps be taken to obviate such a favoring of a corn manufacture in preference to the raw product, for the reason that thereby Germany's treasury and German commerce and trade will be very materially injured.

AMERICAN CORN PRODUCTS.

Relative to the foregoing article I have had interviews with local importers of feed stuffs and learned the following facts regarding the development of the German business in these American corn products: Hominy feed, homko, etc. The import business in corn bran and corn waste was recently again taken up, and large quantities have been contracted for in a comparatively short period. About fifteen years ago efforts were made to introduce this article into Germany under the American denomination "hominy feed," but importers encountered customs difficulties. Occasionally goods were admixed with charcoal dust, so that the same could only be utilized for feeding purposes, to avoid import duty. However, on account of the dark appearance of the feed, resulting therefrom, the value was materially reduced and sales were made difficult. The consequence thereof was that importers were reluctant in risking contracts, for fear that the goods might be subject to import duty, and, as otherwise the demand declined considerably, business gradually relaxed.

Recently these efforts to create a market for American corn feed in Germany were again taken up, applications to the German customs authorities having had a favorable result. The interested companies in the United States, among others, were the American Hominy Feed Company, the American Cereal Company, both of Indianopolis, and the Toledo Elevator Company, of Toledo. The total imports so far amount, approximately, to 15,000 tons.

GOOD FOR CATTLE FEEDING.

The opinion prevailing among competent business men here is that these corn feed stuffs are an excellent material for all kinds of cattle feeding, although containing only 17 to 18 per cent of protein and oil, and that Germany may prove an inexhaustible trade market therefor, it being of great importance in the interests of German agricul-

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ture that the country be supplied with as cheap a feeding product as possible and one which at the same time possesses valuable nutritive qualities.

The main principle in the manufacture of corn waste and corn bran should be that sufficient starch and flour be extracted from the raw product that the waste can only be used for feeding and that no further use could be made therefrom for technical purposes; i. e., that it have the real character of a waste product or corn bran, only fit for feeding purposes, because only under such circumstances the article may be imported into Germany under the free list. A certain limit as to the percentage of starch allowed has not been fixed by the customs authorities; it consequently lies entirely in the interest of American producers to deliver only such goods as will cause no objection and preclude the suspicion that an attempt is being made to infringe the German customs regulations.

INSPECTION FEES FOR FRESH FRUIT.

H. Percival Dodge, secretary of embassy at Berlin, makes the following report in regard to the fees charged in Germany for the inspection of imported fresh fruit in order to detect the presence of San José scale:

In the territory of the free city of Bremen the following charges are made for official inspections: For every package not exceeding 35 gross kilograms (kilogram, 2.20 pounds), 1.19 cents; for every package exceeding this weight, or for every 50 kilograms or less of unpacked fruit, 2.38 cents. The minimum fee for every consignment is 1 mark, or 23.8 cents. In Alsace-Lorraine no fees are charged for the inspection. In the other frontier federated States, with the exception of Prussia and Hamburg, no regulation as to fees has been made, since up to the present no fresh fruit has been directly imported from America.

SWEDISH-GERMAN COMMERCIAL TREATY.

A new treaty of commerce and navigation has been signed between Sweden and Germany, to continue until December 31, 1910. Sweden engages not to levy any export duty on iron ores, and in return the export companies are to pay the Government a certain share in their profits after 1911, and all the ore mines and plants are to revert to the Government absolutely after fifty years. In the usual most-favored-nation clause an exception is made for Norway, Germany engaging not to claim the benefit of any special advantages enjoyed by Norwegian subjects and trade.

RUSSIA.

FREE OF DUTY LIST EXTENDED BY GOVERNMENT.

The Russian minister of finance has issued a decree announcing that privileges of the temporary duty-free importation of the undermentioned articles will be prolonged until January 1, 1911:

Wooden boxes intended for the exportation of eggs; beech staves with hoops (at ports of the Baltic Sea and along the Russo-Prussian frontier).

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Caterpillar glue, for trees.

Preparations intended for preventing or remedying diseases of the vine or other fruit trees, and enumerated in special lists approved by the minister of finance.

Arsenious salts.

Implements, appliances, and apparatus for the destruction of animals injurious to agriculture, and enumerated in lists approved by the minister of finance.

Rope of manila hemp for sheaf binding, in an amount not exceeding 30 pounds for each sheaf binder.

Bands for sheaf binding and sorting machines.

TURKEY.

PROPOSED INCREASE IN CUSTOMS DUTY.

Vice and Deputy-Consul-General William Smith-Lyte, of Constantinople, transmits a copy of the report of the commercial delegates on the subject of the proposed augmentation by 3 per cent of the Turkish customs duty on foreign imports. This report, which was made for transmission to the Heads of Diplomatic Missions, urges the removal of certain hindrances to the expansion of commerce in the Ottoman Empire.

PROPOSED TARIFF REFORMS.

The collective note of the representatives of the powers concerning Turkey's proposed increase of customs duties has been received by the Porte, who has given the assurances required by the powers to obtain their assent to a 3 per cent increase in Turkish customs duties for a period of seven years, and the Porte announces its intention to introduce the surtax September 14. The conditions imposed by the powers require the enforcement of the mining law, the reform of the customs regulations, and the suspension of objectionable regulations for the storage of petroleum, and requires the guarantee of the correct collection of dues, and the assignment of the amounts collected to make up the deficit in the Macedonian budget.

EXPORT MONOPOLY GRANTED.

The Handels Museum, of Vienna, reports that the Turkish Government has granted to a syndicate, known as the "Société anonyme pour l'exportation du sumac," the monopoly for five years of the export from Scutari and Janiari of sumac and gentian.

CANADA.

INFORMATION FOR SHIPPERS AND TRAVELERS TO THE DOMINION.

Consul R. S. Chilton, jr., sends from Toronto extracts from a summary of Canadian customs regulations relating to shipments of goods into Canada, including travelers' samples, tourists' outfits, and automobiles. This summary is taken from the Commercial Handbook of

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Canada, recently issued by Earnest Heaton, compiled from official sources:

All packages must be accompanied by an invoice showing marks and numbers on each package, quantities and values and "fair market value," also selling price to purchaser in Canada if sold before shipment, amount of any freight prepaid, and amount of any freight allowance made by the exporter to the purchaser in Canada. Invoices should also contain terms of purchase, though this is not compulsory. If any articles are manufactured in Germany, the word "Germany" should be written opposite such articles. If in any package goods are inclosed which are not included in the invoice of such package, the inclosure (to avoid seizure) should be noted on the invoice of the outside package containing the inclosure—thus "3 parcels inclosed" (or as the case may be).

TRIPLICATE AND SIGNED INVOICES.

Trouble will be saved to the consignee in Canada if invoices are forwarded in triplicate, as duplicate invoices are now required to be delivered to the customs officer with bills of lading. But a copy of the original certified invoice, if compared and initialed "true copy" by the customs officer, will be accepted as the duplicate invoice.

Exporters may use their own billheads or invoice forms for invoice purposes, if provided with two columns, one headed "Fair market value as sold for home consumption," the other "Selling price to the purchaser in Canada." Invoice forms for goods shipped on consignment need only the first column. Both forms must have written, printed, or stamped thereon (not pasted) the necessary certificates. In all cases the invoices must be signed by the exporter or his responsible agent, and in the case of consigned goods the values, etc., sworn to before a notary or British consul.

The values to be stated in the "home-consumption" value column of invoices of goods sold are the rate per yard, gallon, or dozen. Such values may be shown by stating the list price and the rate of discount, without the total value. Invoices are to be sent to the importer or his agent by mail, for use in making entry of the goods at the customs port of destination. They need not be given to the carrier, but delivery is expedited by doing so. Where the invoice contains only free of duty goods (except in the case of wire rods), the ordinary certificate and declaration are not required. But shippers should bear in mind that goods may be taken off the free list.

FAIR MARKET VALUE.

Whenever any duty ad valorem is imposed on any goods imported into Canada the value for duty shall be the fair market value thereof when sold for home consumption. Invoices representing cash values shall be subject to such additions as to the collector or appraiser of the port at which they are presented appear just and reasonable to bring up the amount to the true and fair market value. The fair market value of goods includes any drawback allowed by the Government of any country, also the amount of consideration of any special arrangement between the exporter and the importer, or the right to territorial

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limits for the sale or use thereof, and also the amount of money value of any so-called royalty, rent, or charge for use of any machine or goods of any description.

When goods are manufactured solely for export the fair market value may be usually determined by the total cost of producing the goods in condition ready for the market, including all expenses, and adding the usual profit made on home consumption sales of similar goods.

NO DEDUCTION ALLOWED—INVOICES OF SAMPLES.

No deduction of any kind shall be allowed from the value of any goods imported into Canada because of any drawback paid or to be paid thereon, nor on account of the assumed value of any package or packages where no charge for such package or packages has been made in such invoice. No deduction from the value of goods in any invoice shall be made on account of charges for packing which shall be included as part of the value for duty.

Commercial travelers are required to deliver to the customs officer for entry purposes an invoice or statement in detail, showing the wholesale home prices, attested to by the traveler, and the proper duty paid before delivery. Cards, portfolios, pasteboard boxes, or other coverings containing cut samples of cloth, edgings, textile fabrics, buttons of various patterns, and other articles obviously for use only as samples to sell by and having "no commercial value," are admitted free. This does not, however, apply to those having a salable value.

DUTY ON TRAVELERS' BAGGAGE.

Merchandise for sale, when brought into Canada as baggage, is subject to duty and to entry at the custom-house in the same manner as goods imported by freight or express. Wearing apparel, articles of personal adornment, toilet articles, and similar personal effects of persons arriving in Canada may be passed free without entry at customs as travelers' baggage. But this provision shall only include such articles as actually accompany and are necessary and appropriate for the comfort and convenience of the traveler, and shall not cover merchandise or articles intended for other persons or for sale.

"SPECIAL DUTY" OR "DUMPING" CLAUSE AND EXCEPTIONS.

Goods of a kind made in Canada are subject to special duty when the export or actual selling price to the importer in Canada is less than the fair market value thereof as sold for home consumption in the ordinary course of trade and on the usual credit terms (unless the article is universally sold for cash) in the county of export. Such special duty shall be the difference between such fair market value and such selling price, but not to exceed one-half of the ordinary customs duty otherwise established in respect of the goods, with certain exceptions, some of which are:

(1) Goods subject to duty equal to 50 per cent ad valorem; (2) goods on which the difference between the fair market value and the selling price does not exceed 5 per cent of their fair market value; (3) articles of merchandise for bona fide use as samples for the sale of similar goods; (4) goods of a class subject to excise duty in Canada; (5) amount

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of any advance in the market value of goods between the time of their purchase by the importer and the date of their exportation to Canada is not subject to special duty; (6) in respect of the following articles the special duty shall not exceed 15 per cent ad valorem, based upon the fair market value for home consumption in the country of export as aforesaid, nor more than the difference between the selling price and the fair market value, viz: Iron in pigs, iron kentledge and cast scrap iron; iron or steel ingots, cogged ingots, blooms, slabs, billets, puddled bars, and loops or other forms, n. o. p., less finished than iron or steel bars, but more advanced than pig iron, except cast; rolled iron or steel angles, tees, beams, channels, joists, girders, zees, stars, or other rolled shapes, or trough, bridge, building, or structural rolled sections or shapes, not punched, drilled, or further manufactured than rolled, n. e. s., and flat eye-bar blanks, not punched or drilled; rolled iron or steel plates not less than 30 inches in width, and not less than one-quarter of an inch in thickness, n. o. p.; imported rolled, round wire rods not over three-eighths of an inch in diameter, notwithstanding that such rods are on the customs free list; (7) the customs regulations may at any time provide for a temporary exemption from special duty of any article or class of articles when it is established to the satisfaction of the minister of customs that such articles are not made in Canada in sufficient quantities and offered for sale to all purchasers on equal terms.

REFUND ON TOURIST OUTFITS.

Tourists may bring into Canada guns, fishing rods, canoes, tents, camp equipment, cooking utensils, musical instruments, kodaks, etc., free of duty, for their own use and not for gain or hire, provided that a deposit be made with the customs officer at port of entry equivalent to the duty on such articles, which deposit will be returned on proof of exportation within six months from time of entry. Articles must be identified at the customs port where reported inwards.

Automobiles may be brought into Canada free of duty by tourists for their own use only, subject to the following conditions: (1) The automobile must be reported on form approved in duplicate at the custom-house at the port of importation. (2) Invoice showing selling price must be produced when practicable. (3) Deposit of $25 must be made, and a bond for double the estimated duties in approved form conditional on exportation within three months from date of bond. The deposit will be returned upon proof of exportation within three months.

REDUCED RATES ON PETROLEUM.

Consul H. J. Harvey writes from Fort Erie that within a few months the Canadian government has reduced the duty from 5 cents to 2½ cents on imperial gallon of refined, lubricating, and other oils produced from petroleum. The oil wells in this Province have nearly run dry and large quantities of American oil are sent here.

BEET-SUGAR AND GOLD-MINING OUTFITS ADMITTED FREE.

Consul James H. Worman reports from Three Rivers under date of June 2 that the Dominion government has suspended the tariff on

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beet-root sugar machinery for the remainder of this year. He adds that—

This temporary advantage to American manufacturers of such machinery should at once be availed of, as the Germans will not be slow to enter the field in competition.

Until the end of the present year free entry into Canada will be permitted on gold-mining machinery; and as there is great activity not only in the cobalt district but throughout the Dominion, there should be no time lost by American manufacturers of alluvial gold mining machinery to avail themselves of this great trade opening.

Capitalists from different European countries, notably France, Belgium, and Germany, are investing in Canadian mines, and foreign competition for the supply of mining machinery will surely follow.

MEXICO.

CUSTOMS RULES AND REGULATIONS.

Vice-Consul John A. Bonnet, of Ciudad Porfirio Diaz, furnishes the following on customs regulations of Mexico:

There appears to exist an impression by importers of goods into Mexico that the customs duties and regulations are onerous and difficult to understand. Mexican duties on animals are based on the head. All animals except hogs and geldings are admitted free. On all other classes of merchandise the duties are based on weights and measures; on brandies, wines, and whiskies on the gallon, and on boots and shoes on the pair. The metric system is used.

The following rules and regulations should be strictly adhered to: Duplicate copies of bills of lading covering the goods to be imported must be sent to the custom-house broker at the port of import, together with a copy of the invoice, manifest, and a packing list. The original bill of lading and invoice should be sent direct to the consignee.

The packing list must show the marks, countermarks, and number of packages, contents of each, and the principal material of which each article is made, and if plated, must state with what it is plated, gross weight, and the kind of goods in each package, legal weight of each package or class of goods, value of each article, total value of package, name of the consignee, destination, and the name of the custom-house broker in whose care freight is consigned. The valuation should in all cases represent the actual value of the merchandise at the point of shipment. If articles are undervalued they are subject to a fine for undervaluation, although the value cuts no figure in the duties, as all duties are specific. This rule applies also to declarations as to weight and class of merchandise, which must be given correctly, otherwise a fine will be imposed.

Weights and measures are expressed in the metric system, and they should be so plain that no mistake can be made in reading them, as customs declarations are made in that system.

In wines, brandies, and whiskies, in addition to the weights, the number of gallons should also be given.

In cloth fabrics the length and width of each piece must be given, including fringes. Declarations as to weights and class of merchandise must be exact, or a fine will be imposed if undervalued or if it is underweighed.

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CUBA.

RECIPROCITY TREATY WITH THE UNITED STATES.

The following circular, issued by the customs division of the treasury department of the Republic of Cuba, dated May 22, should be carefully noted by American exporters doing business with Cuba, as it concerns exclusively Cuban-American trade relations:

For the purpose of avoiding delay in steps for the refund of duties on goods imported from the United States cleared on pro forma invoice, and which are not accorded the benefits of reciprocity treaty until the presentation of the original invoice with all formalities exacted by circulars Nos. 199 and 209, this department has decided that duties assessable on such goods, after deducting treaty differentials, shall be paid definitely upon clearance, and the amount of the latter deposited for subsequent refund.

When the original invoice shall have been presented within the established time limit the necessary authorization for the refund of the aforesaid deposit shall be requested of this department, provided such invoice fulfills the requirements of the above-mentioned circulars.

If invoices so presented should not fulfill such requirements or be presented within the time limit fixed by the collector, the deposit shall be considered as forfeited.

BRAZIL.

OPPOSITION OF FEDERAL GOVERNMENT TO VALORIZATION OF COFFEE.

The movement in Brazil for valorization of coffee is the subject of a report by Consul-General George E. Anderson, of Rio de Janeiro. The basis for the scheme and the attitude of the Brazilian Government are explained, and the statement is made that a movement has been started for fixing by law the value of sugar. The Consul-General writes:

The Congress of Brazil is considering a proposition to give to coffee a fictitious value by Government action. The present crisis arises from the condition of the coffee market of the world on the one hand and from the state of Brazil's monetary circulation on the other, the latter being largely a matter of foreign exchange; foreign exchange and the prices received for coffee in turn being very closely related. The situation has been growing worse steadily for years, until matters have come to such a pass that a determined effort is being made to effect a change, and this effort has taken the form of one or more plans to establish exchange upon a more stable basis by reorganizing the country's circulating medium, and of a scheme to arbitrarily fix the price to be received for the crops of the country from the rest of the world.

THE MONETARY SYSTEM.

The monetary system of Brazil in theory is based upon the gold standard, a milreis, worth about 54 cents American gold, being theoretically the measuring medium of exchange. On the principle that the cheaper money drives out the dearer, the country's actual circulating medium, however, is paper money issued by the Government

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in the form of promissory notes, payable at no definite time and generally taken as practically irredeemable, and its actual international monetary measure is the English pound sterling, in which even the immense balances for coffee paid by the United States are remitted. At present the paper notes of the Government are circulating at a discount of about 57 per cent as compared with their face value in gold milreis. The Government is attempting, from time to time, to force their value higher by operations through a Government bank. Prices in Brazil for all commodities, including the cost of producing crops, remain practically fixed in the paper currency of the country, however, and are very high; and when the value of paper goes up, the amount of gold received from the sale of a coffee crop exchanges for just that much less paper and goes just that much the less toward paying these fixed prices in paper money for commodities and for producing crops. There is, therefore, a conflict of interest between those who require a currency with a fixed value, with the paper money at par on the one hand, and the planter class who require, or think they require, low value for the paper money in terms of gold that their gold exchange shall go as far as possible on the other hand.

THE VALORIZATION SCHEME.

The proposition to fix a value for coffee arbitrarily comes from the three coffee-producing States, and in a convention held in February last the governors of these three States agreed to ask the Federal Government to establish a credit of $75,000,000, to be raised by a loan, secured by a tax of about 60 cents gold on each bag of coffee sold, for fixing the value of the coffee crop by means of purchases to be made by a commission at from 55 to 65 francs gold for a sack of 60 kilos No. 7 coffee, New York grading, from about $11 to $13 per sack of 132 pounds. A regular and comprehensive coffee propaganda also was to be established and there were other features of the proposition. The three States concerned planned to undertake the enterprise upon their own credit and authority, but the governor of the State of Rio de Janeiro forced the matter into Federal channels by insisting that as a part of the scheme exchange should be fixed at the same time.

OPPOSITION OF THE GOVERNMENT.

The present Federal Government, however, has pronounced finally and definitely against the coffee valorization scheme, and is determined to maintain exchange above 15 pence, or 30 cents gold, to the milreis, as long as it is in power, and, indeed, until the next budget bill is passed. In the first place it inserted in the present budget law a paragraph providing in effect that when exchange is forced below 15 pence to the milreis, the Government shall lose a very considerable portion of its revenues. In his message to Congress the President of the Republic discusses the question fully and frankly, and takes decided stand against the proposition. He declares that "rash measures might produce the opposite effect of restricting the consumption of coffee, provoke retaliation from the consuming countries, and bring upon our markets the threat of agitation which a very recent experience has taught us to avoid." The Government is fully as decided in its attitude

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against immediate conversion of the monetary system of the country at less than par, a position which the President firmly takes in his message.

BRAZIL'S FINANCIAL SITUATION.

That the present Government of Brazil is in a position to maintain exchange at something like its present position seems to be generally admitted; that it is unalterably committed to that policy appears not only from the statements of the President, but in the provisions of the tariff or budget law, by which it is arranged that if exchange goes below 15 pence for thirty days in succession certain duties are to be remitted so long as it continues below 15 pence for thirty days at a time. This reduction will amount, according to the estimate in the law, to $7,500,000 annually. It stands as more or less of a guaranty that exchange will not be low during the present régime.

That the Government is able to maintain exchange and carry out its general financial policy appears to be supported by its present financial condition. In his message the President reports that the Brazilian treasury has a balance with its London bankers of about $35,000,000, exclusive of its special loan for the construction of special port improvements, amounting to $17,500,000, and of $5,000,000 in bonds loaned the Bank of the Republic. According to his report or review the Brazilian nation last year had a balance of exports over imports of over $80,000,000, and its income in gold from abroad exceeds its outgo. The general trade situation is discussed by President Alve in his message, from which it appears that the value of exports and imports the past two years were—

	1904.	1905.
Exports	$191,886,756	$217,255,709
Imports	126,117,406	136,839,879

CONCESSIONS TO PLANTERS PROBABLE.

It is easy to see that the people of the United States, who consume something like two-thirds of Brazil's coffee crop, have a direct and vital interest in the present economic situation in Brazil. The general coffee valorization and exchange proposition is now being discussed before the Brazilian Congress and in the newspapers and is the crux of the political and economic situation in Brazil. Men long experienced in the business affairs of Brazil are of the opinion that the new Brazilian Government will not attempt the valorization of coffee, but that it will make concessions to the planting interests in the way of permitting the lowering of the value of the paper milreis and fixing the value at something like 12 pence or 25 cents American gold to the milreis, probably arranging for the conversion of the paper currency to a metal currency at the rate so fixed.

VALORIZATION OF SUGAR.

In the meanwhile a movement to establish by law a value for sugar has been in progress pari passu with the movement to establish a price

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for coffee by law, but it seems to have received a decided setback in its early stages. The Brazilian authorities, who have had the matter under consideration, have come to the view that to thus give a fictitious value to sugar by law, would in fact be an indirect bounty upon the product, and that as a result those countries, including the United States, which had inaugurated the policy of assessing an extra customs duty to an amount equal to the bounty upon sugar manufactured in countries paying a bounty directly or indirectly, would nullify the proposition so far as sugar exports to the United States are concerned. With American markets closed to Brazilian sugars the prospects of the country's export sugar trade would be very weak. Brazil in good years has shipped abroad something over 550,000,000 pounds of sugar, according to reliable authority. Its possibilities in the sugar line are immense, and this seems to be especially true of low-grade sugars, molasses, and by-products.

LABELS ON GOODS.

Under the Brazilian law, which came into force on February 28, 1901, the importation of goods from abroad bearing labels in Portuguese is only permitted when the actual country of origin of the goods is specified on the labels. This seems to have been overlooked by some exporters to Brazil, and an English journal reminds them of the regulation.

CHINA.

INCREASED TOBACCO TAXES IN MANCHURIA.

Consul-General Thomas Sammons, of Newchwang, writes that the tax on cigarettes and tobacco has been increased approximately 400 per cent in Manchuria.

The native tobacco guilds have protested against the new tax regulations, the foreign managers of tobacco and cigarette interests are deeply concerned, and the actual collection of the increased taxes has been held in abeyance. Inasmuch as it is proposed to treat the immense cigarette output of Shanghai factories in which American leaf tobacco is used as native goods, the proposed increases in tobacco taxes will have a direct and important bearing upon a leading American product. Heretofore the tobacco and cigarette taxes and likin have been somewhat nominal, and, in fact, likin charges have in many instances been less burdensome than resorting to the payment of transit dues, and thereby avoiding the likin tolls.

Under the policy of treating American leaf tobacco when manufactured into cigarettes in China as native goods, likin charges or other taxes imposed by the Chinese Government are levied. Under treaty stipulations, however, the formidable rival of the British-American Tobacco Company—the Japanese Government tobacco interests—could seek to escape likin charges by taking out and paying for transit passes. The attempt, however, to escape the former breeds practical possibilities in China of applying the tax or toll in some other form, place, shape, or manner, a condition that is fully understood by the trade, regardless of treaty obligations.

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CHINAMEN ENTERING THE BUSINESS.

The exploitation of the cigarette and tobacco business in Manchuria and China, generally, continues with a growing disposition on the part of the Chinese to take a more prominent part in this increasing trade. The Chinese in opening small factories copy the methods of Americans, Europeans, and Japanese. In one instance, in Niuchwang, a native cigarette manufacturing establishment has been suppressed through the activity of the managers of the British-American tobacco interests, with the aid of the Japanese military administration, which for nearly two years has been profiting by irregular and manifestly illegal methods. This concern manufactured cigarettes and placed them in the empty boxes of established foreign brands.

The cigarette advertising on Chinese walls with brilliant tints of green, red, purple, orange, and lavender, for a time suppressed, again display rainbow hues in picturing huge dragons and peacocks with green tail feathers 3 feet in length. The Japanese Government tobacco managers are utilizing billboard advertising methods more extensively. At Liao Yang one of the city gates is now notable chiefly because of an elaborate fretwork of small Japanese cigarette signs arranged with geometrical exactness in serrated lines that lend a touch of color to a massive dull surface. Painted advertising signboards are also being placed along the lines of the Chinese Eastern Railway in lower Manchuria similar in a general way to the patent medicine and novelty fence and field signboard advertising in America and elsewhere.

SOUTH AFRICA.

INCREASED RATES FOR HOME PROTECTION.

Consul-General Horace Lee Washington sends from Cape Town a report concerning the probable increase of the tariff rates in South Africa. He says:

A new customs convention that will, perhaps, alter existing rates, was signed at a conference recently held by delegates of the five States forming the South African Customs Union. Since the provisions of the new convention will be kept secret until submitted to the respective parliaments (simultaneously, if practicable) the premier of this colony is not at liberty to give details, but has expressed the opinion that there would be no difficulty in passing it as approved by the convention.

The general feeling appears to be that duties will be raised, especially upon articles which can be produced or manufactured in this colony and British South Africa generally, and as the Official Government Gazette of the 13th instant publishes, "for general information," returns showing quantities and vaues of such articles imported into the colony during the six months ended December 31, 1905, it would appear likely that such is the intention, and that this customs notice is prepared to pave the way for the reception of a convention that raises the rates. The Cape Colony parliament will convene the last week of May, and the customs convention will, doubtless, come on for early action.

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The following table shows the total imports from America into this district, Cape Colony and Natal, of the principal articles referred to in the customs returns for the year 1904. The figures, by countries, for 1905 are not yet available:

Articles.	Cape Colony.	Natal.
Butter, margarine, etc	$2,798	$7,095
Candles	11,659	82,759
Hams and bacons (potted and sliced)	9,270	7,489
Lard	177,276	69,167
Sugar	203,161	44,012
Boots and shoes	130,967	105,880
Fruits (dried and preserved)	37,399	64,466
Confectionery	17,675	6,258
Milk (condensed)	33,627	139,074
Maize	35,895	378,047
Wheat	556,902	9,038
Flour	501,045	760,040

THE PREFERENCE CLAUSE DECLARED VALUELESS.

The new South African tariff, formed by Natal, Southern Rhodesia, Cape Colony, Transvaal, and the Orange River Colony, took effect on May 26, 1906. A preference is given to Great Britain, but the London Commercial Intelligence and other English authorities declare that the preference will benefit neither Great Britain nor the colonies.

A majority of the delegates to the customs conference did not favor preference, and for that reason, it is said, a larger preference was not allowed. To offset the increased direct customs duties it was agreed that the railway charges on the Transvaal's and Orange River Colony's imports should be greatly reduced. The intercolonial treasurer has announced that the railway reductions will amount to $1,500,000 per annum, which took effect on May 26, 1906. The Johannesburg Chamber of Commerce, however, estimates the amount of reduction necessary to counterbalance the tariff at $3,000,000 at the very least. The coast colonies expect to benefit by the increased tariff in getting increased customs revenue, and encouraging local production, thus enabling local industries to compete for the home trade.

MADAGASCAR.

DUTY ON GOLD MINING MACHINERY.

Consul William H. Hunt sends from Tamatave the modification to the decree of July 28, 1897, which exempted from the general tariff all foreign gold mining machinery imported into Madagascar. The decree reads:

ARTICLE 1. The table annexed to the decree of July 28, 1897, making modifications in the general tariff affecting products of foreign countries imported into Madagascar, already amended by the decrees of May 31, 1898, August 10, 1900, and June 5, 1903, is further modified as follows: The duties on all gold mining machinery, including its parts, separate or put together (engines and motors not included), will be 8 francs ($1.54) per 100 kilograms (220 pounds) net.

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COTTON.

BRITISH PIECE GOODS.

WONDERFULLY THRIVING INDUSTRY.

INCREASED EXPORTS TO THE FAR EASTERN COUNTRIES.

The extent and steady growth of the trade of Great Britain with the Far East in cotton piece goods is shown in the annexed table. The figures represent millions of yards and cover operations for the twelve months ending April 30 of the four years given. They supplant tables published in Daily Reports, May 21, covering the three last calender years and will prove an interesting study for American manufacturers of similar goods:

PLAIN COTTONS.

Twelve months ended April 30.	1906.	1905.	1904.	1903.
Bombay	411	389	359	330
Calcutta	1,166	1,067	923	1,047
Madras	88	105	74	87
Ceylon	17	16	10	15
Kurrachee	156	168	105	104
Rangoon	41	44	34	42
Shanghai	458	382	229	276
Hongkong	70	71	70	64
Singapore	91	68	70	76
Java	110	93	68	75
Manila	19	14	12	15
Japan	94	44	30	63
Total	2,721	2,461	1,984	2,194

DYED AND COLORED.

Bombay	84.4	76.2	83.4	58.2
Calcutta	69.8	63.7	63.8	60.2
Madras	8.7	12.5	13.2	21
Ceylon	3.4	2	2	2.7
Kurrachee	42.4	35	23.2	27
Rangoon	14.1	13.6	10.9	7.2
Shanghai	145	116.2	93.2	62.9
Hongkong	14.8	27	19.7	10.2
Singapore	17.4	14.9	18.9	10.1
Java	36.2	35	23.2	22.4
Manila	9.5	6.2	4.6	8.8
Japan	20	10.9	9.6	18
Total	465.7	413.2	365.7	308.7

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PRINTED.

Twelve months ended April 30.	1906.	1905.	1904.	1903.
Bombay	122.5	112.7	114	94.2
Calcutta	66.5	61.1	69.8	57.6
Madras	18.1	29.4	25.9	28.6
Ceylon	5.1	4.9	3.8	4.9
Kurrachee	59.6	51.4	41.3	34.4
Rangoon	19	21.7	19.9	21.4
Shanghai	37.3	19.5	29.7	41.1
Hongkong	5.4	6	6.7	3
Singapore	18.4	19.1	24.9	22.6
Java	78.4	67.6	55.1	69.5
Manila	14	8.7	5.1	13.1
Japan	12.8	5.4	9.9	23.5
Total	457.1	407.5	406.1	413.9
Grand total	3,643.8	3,281.7	2,755.8	2,916.6

COTTON YARNS.

The sale of cotton yarns is shown in the following table during the twelve months ending April 30, the figures representing millions of pounds:

Twelve months ended April 30.	1906.	1905.	1904.	1903.
Bombay	11.8	7.2	5.0	6.5
Calcutta	13.1	7.1	5.5	7.7
Madras	8.7	10.2	6.5	8.7
Ceylon	.7	.5	.7	.4
Kurrachee	1.9	2.0	1.6	1.8
Rangoon	4.1	3.5	4.6	5.0
Shanghai	3.3	3.3	1.6	1.3
Hongkong	4.4	3.3	1.8	2.5
Singapore	2.3	1.5	1.6	2.1
Java	1.3	.8	.5	.7
Manila	.8	1.0	.7	.2
Japan	6.4	1.0	.8	2.4
Total	58.8	41.4	30.9	39.3

A WORLD TRADE.

RETROSPECTIVE, PROSPECTIVE, AND ADMONITORY.

Mr. William Whittam, of Charlotte, N. C., prepared for the American Cotton Manufacturer an article on the cotton trade, in which he declares that the large increase in the export of cotton piece goods is due to "an abnormal and hitherto unheard-of universal demand for the products of the world's spindles, rather than to systematic or organized effort on the part of our manufacturers," a declaration which is buttressed by published reports from American consular officers and special agents of the Department of Commerce and Labor. On this point Mr. Whittam says:

It is indicative of past indifference to latent opportunities that, while our outgo of cotton cloths has increased, the phenomenal growth in exports of this class of goods can not by any means be attributed to an

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increase in the activity with which our manufacturers and distributors sought new outlets or endeavored to strengthen their hold in the markets where they were already established. True, we know of one or two merchants and a few more mills who have at no little initial expense succeeded in creating a demand for their products in markets where American cloths were previously unknown. But this affects but slightly the general proposition that our recent growth has been due to an abnormal and hitherto unheard-of universal demand for the products of the world's spindles and looms. Practically all the extra business we have done reached us after the European mills were plethoric with orders. When the overflow came it took the only course open to it, which was westward across the Atlantic. Nor was this universal buying activity unlooked for by close students of conditions in the many markets and manufacturing centers in this and trans-Atlantic countries.

LOOKING AHEAD.

We have now to face another development which will surely reach us disadvantageously sooner or later. England has added about seven million new spindles during the last eighteen months and has increased the number of her looms very materially, if not enough to take the entire product of this tremendous increase in spindleage. It is obvious that the growth in the needs of the British home market can not be expected to use more than a fraction of the goods these new spindles and looms will produce. Their owners must then of necessity seek entirely new markets or encroach on the trade of their competitors in established entrepôt. When they do this it will surely affect our standing, unless strenuous efforts are made to retain our present grip or to gain a foothold in those important buying centers we have not yet touched. Nor should it be forgotten that the many new mills now being erected in this country must find a market for their wares, and rapidly as new factories are springing up, the pace will be much faster in the South when the many gigantic hydro-electric developments now under construction are completed and ready to deliver electricity at a low price to new mills properly laid out to use this type of drive to best advantage. India, a bigger purchaser than China, we know practically nothing about since we send in driblets less than a half million dollars' worth of cloth a year out of total importations by that Empire amounting to considerably over a hundred million annually.

EXPORT OF COTTON YARNS.

Mr. Whittam refers to the large trade of Great Britain in cotton yarns, and furnishes a tabular statement showing the extent of that trade. It will be seen that Great Britain sold in foreign countries last year 205,000,000 pounds of cotton yarns valued at $7,660,000. The value of cotton yarns exported by the United States in 1905 was $343,243. Mr. Whittam says:

There is one important branch of the export trade which we have neglected from the beginning, our share in it being a mere bagatelle. Cotton yarns are bought largely by many countries. Britain's trade in this commodity reaching something like $50,000,000 worth annually, while American foreign sales of yarns persistently hover around a

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beggarly quarter million mark. Take the British record for the three years 1903–1905. During the first twelve months she exported 150,758,000 pounds, while in 1904 her outgo was 163,901,000 pounds. Russia is easily first in the quality of yarn she buys from England and the price she pays for it, while Egypt takes the lowest average. Germany, the Netherlands, and India are England's best yarn customers, so far as volume of trade goes, as the subjoined table shows in detail:

Exports of cotton yarns from England with average prices per pound for three years, in thousands of pounds.

Country.	1903.		1904.		1905.	
	Pounds.	Cents per pound.	Pounds.	Cents per pound.	Pounds.	Cents per pound.
Russia	814	60.44	713	61.42	557	61.32
Sweden	1,526	22.00	1,486	25.10	1,512	22.24
Norway	1,656	19.08	1,511	22.10	1,606	19.46
Denmark	2,429	17.82	2,368	20.36	2,860	19.02
Germany	27,239	32.10	40,293	32.54	39,513	32.76
Netherlands	29,591	18.20	29,384	20.96	37,341	17.86
Belgium	3,870	31.78	5,864	33.00	7,205	32.32
France	3,974	35.18	3,084	40.02	3,518	45.28
Italy	204	43.56	174	49.40	204	44.42
Austria-Hungary	2,662	23.20	3,329	28.72	3,066	26.72
Roumania	4,608	17.10	5,072	20.26	7,856	19.46
Turkey	12,966	17.86	14,253	20.10	17,389	18.74
Egypt	4,590	17.32	4,381	19.66	4,382	7.18
China (Hongkong included)	4,660	18.90	2,457	20.48	8,441	17.40
Japan	1,406	25.96	681	22.92	4,071	27.98
British India:						
Bombay	6,286	41.60	8,145	23.76	13,112	21.72
Madras	6,683	22.14	8,288	24.96	10,930	23.82
Bengal	6,777	28.08	6,596	25.64	11,068	22.40
Burmah	5,611	24.34	3,388	24.78	4,211	24.62
Straits Settlements	1,945	21.62	1,137	23.14	2,149	21.42
Ceylon	83	23.54	44	33.02	42	27.10
Other countries	21,129	24.78	21,252	26.56	23,970	24.86
Total and average	150,758	23.58	163,901	26.22	205,001	24.16

ASIA MINOR.

AMERICAN GOODS INTRODUCED.

In response to the report of Consul Evan E. Young on "Cotton textiles in Asia Minor," published in Daily Consular and Trade Reports for March 12, many samples of American cotton textiles have been received at the Harput consulate. Mr. Young's letter tells of the excellent results therefrom, as follows:

These samples were immediately brought to the attention of the local importers of such goods, and as a result some splendid trial orders have been sent to our American manufacturers. A considerable number, however, of agents and manufacturers in America, in submitting their samples, declined to quote prices c. i. f. Samsoun and their samples were accordingly given but bare notice by the local merchants. Dealers here are accustomed to receive their goods at Samsoun, and our exporters are urged to agree to this provision. This method is generally followed by European houses exporting to this district, and its acceptance in the United States is virtually necessary before we can expect to increase in any considerable amount our exports to this region. This field offers exceptional opportunities to the exporters of cotton textiles, and if we are eventually to gain this market must concede something to the requests of reliable importers.

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YARN FOR CHINA.

JAPANESE SPINDLES KEPT BUSY.

The Kobe Chronicle, a Japanese newspaper, gives statistics of the rapid growth of the cotton-spinning industry in Japan, and says:

The number of spindles to be increased during this year throughout Japan aggregates 52,552, which represent, taking the production of 1905 as the basis of estimate, an increased output of about 42,300 bales. With regard to the demand for cotton yarn in China, it may be described as practically unlimited. At the rate of 1 bale for every 100 of population it may be computed that there exists in China a market for about 4,000,000 bales of yarn. At present India supplies 600,000 bales and Japan 260,000, and therefore it would seem that there is an ample field in China for building up a large and profitable trade in cotton yarn.

RAW COTTON.

BRITISH DEPENDENCE.

NATIONAL PROSPERITY HINGES ON AMERICAN RAW COTTON.

Consul D. W. Williams, of Cardiff, writes that few realize the extent to which British industry is dependent upon the cotton growers of the United States; therefore the following summary of the cotton industry in England will give an idea of present conditions:

Capital invested, directly and indirectly	$1,946,600,000
Value of raw cotton imported	218,992,500
Gross value of cotton manufactured goods	559,647,500
Value of cotton goods exported	447,718,000
Gross profits of the cotton industry in England	340,655,000
Number of English dependent upon the industry	10,000,000

Practically all the raw cotton is imported by British ships, the cotton exports are handled by British shipping and merchants, and the entire profits from the industry are thus enhanced by many millions. A well-known expert estimates that England's profits from cotton during the year 1905 amounted to $389,320,000. The figures for the same year show that the United States furnished 15,440,574 hundredweight of the 19,674,960 hundredweight of the cotton imported. In other words, three-fourths of the gross profits of the industry, or $291,990,000, were derived from the manufacturing of the American product. The statistics given are as significant from an American point of view as they are serious to the English. American shipping might profit largely from the cotton-carrying trade, and American manufacturers might secure all the profits that now fall to the English.

Many far-sighted Englishmen already appreciate the possible result of such an awakening on the part of Americans. They know that the loss of the American raw product, from any cause, would precipitate a period of industrial depression more severe than any recorded in the past or possible in any other industry. It is on this account, from

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patriotic as well as commercial reasons, that every effort is made to develop new cotton fields in the cotton belt of the earth. Outside of Egypt, which produced 3,223,894 hundredweight last year, the efforts made have not been notably successful. This has led to the suggestion that English capital should be invested in the Southern States in order to secure enough land to raise at least 3,000,000 bales a year. This suggestion is seriously discussed in the papers.

BRITISH COTTON-GROWING MOVEMENT.

Consul S. S. Knabenshue transmits a report of a meeting of the Belfast Chamber of Commerce at which British cotton growing was the active subject. A Manchester speaker told of the efforts of the British Cotton Growing Association in various part of the world, notably Northern Nigeria, where there are 200,000,000 acres with a population of 10,000,000 and capable of supplying all of the American type of cotton required. He appealed for subscriptions in order to make up the $325,000 lacking in the association's $1,500,000 capital stock. They wanted to have ample funds for operations when the 400-mile railway was built from the port of Baro, on the river Niger, to Kano, the capital of Northern Nigeria, though no arrangements have been made to secure the capital to build the road. It was stated that the cotton grown under the auspices of this association in 1903 was 1,900 bales, valued at $145,000; in 1904, 6,000 bales, at $400,000; in 1905, 14,200 bales, at $900,000, and the estimate for this year was 20,000 bales, valued at $1,650,000.

GOVERNMENT ASKED FOR AID.

A deputation organized by the British Cotton Growing Association recently called upon the British premier for the purpose of urging the necessity for the extension of railways and roads in West Africa and the improvement of the waterways.

Mr. J. A. Hutton emphasized the great importance of the cotton trade for the welfare of the United Kingdom, the real profits of which to that country were not less than $350,000,000. The trade, he said, was in a dangerous position because they derived 75 per cent of the supply from the United States, and a disaster to the cotton crop of that country would be a disaster to the United Kingdom.

Therefore the remedy was to increase the places of supply all over the world, and preferably within the British Empire. The second danger was that the consumption was more or less overtaking the production. The British Cotton Growing Association had come to the conclusion that what they wanted was a country that could produce millions of bales of cotton to take the place or supplement the supply of American cotton. They had pursued their inquiries throughout the British Empire, and the one place which offered the greatest possibility of providing those bales was Northern Nigeria, in which country alone lay the possible salvation of Lancashire. But at present it was inaccessible, and if they were to do any good there means of transport would have to be provided in the form of improved water communication and a railway, but he was afraid that that railway could only be constructed with Imperial assistance in some form.

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The British premier replying to the deputation said that the trade and industry of Lancashire was a benefit to every portion of the Kingdom. The question was, What could be done, and what could the Government do? He could not say that the few months they had been in power had enabled the present ministry to come to any detailed or definite conclusion. The deputation could not be surprised that any government was a little cautious, not to say suspicious, when asked to undertake the building of a railway; suspicious, not of the motives of the promoters, but of the figures laid before them. But the Government was ready to consider favorably any claim which involved assistance in a reasonable way in the great purpose they were seeking to attain by opening up this great source of supply for the material of their industry.

QUANTITY GROWN UNDER BRITISH AUSPICES.

The British undersecretary for the colonies recently stated in the House of Commons that the amount of cotton grown under the auspices of the British Cotton Association, in the years mentioned, was of the following value:

1903	$141,128	1905	$924,635
1904	389,320	1906 (estimated)	1,605,945

GERMAN COLONIES.

EFFORTS TO CULTIVATE THE FIBER IN EAST AFRICA.

Consul J. I. Brittain writes from Kehl that the German newspapers are vigorously proposing that greater attention be given to cotton raising in the German colonies, many of which, they say, offer excellent grounds for its culture.

The report of the Kolonial Wirtschaftlichen Kommittees, just out, states that in Tonga during the year 1905, in spite of drought, the exports of cotton amounted to 257,500 pounds, worth $34,670, nearly all coming to Germany. In East Africa the harvest suffered on account of the rebellion; nevertheless, of the harvest of 1905 already 650 bales of 500 pounds each, and worth $47,600, have been shipped. While in Togo the principal cultivators of cotton are natives, there is a strong movement for the cultivation of cotton on a larger scale by the use of machinery. Nearly all parts of German East Africa are suitable for cotton culture, especially in the south on account of regular rains.

At a recent meeting of the Industrielle Société of Mulhausen a "study" of cotton cultivation in German East Africa, written by M. Borchard, was read. In it the author states the result of cotton planting in various states and speaks of the success which has attended it. One cotton mill had remarkable success with cotton from Tonga. At the meeting a notice was also read of the administrators of the Société Cotonnière de l'Indo-Chine, in which it was stated that cotton of Cambodia was better than that of Tonquin and would compare favorably with that of Texas or Louisiana. The German cotton spinners and the textile manufacturers have determined to make the cultivation of cotton on German soil a scientific study and be less dependent upon

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America for their supply of the future. In 1905, according to a recent report, orders for several million bales could not be filled in America. But the trouble probably grew out of the price limit.

FRENCH OCEANIA.

RENEWED FIBER-GROWING EFFORTS.

Consul William F. Doty reports from Tahiti that the Official Journal of the Society Islands recently contained the following:

The governor deems it necessary to publish information which the president of the chamber of commerce has addressed to him with reference to the sale of Tahiti sea-island cotton. A 220-pound lot of ginned cotton sold at $46.71; expenses for ginning were $4.82; freight to Europe, $2.90; insurance, commission, etc., $4.68, making the net proceeds, $34.31. As ginned cotton weighs about 30 per cent of raw cotton, the value of 1 pound of raw cotton was $0.0519; cost at Tahiti, $0.0395, leaving the net proceeds, $0.0114 per pound for raw cotton.

During the American civil war, cotton from French Oceania was much in demand in England. It is apparent that the local government is eager to encourage cotton culture on a large scale again, and charge no export tax on cotton. The cotton exported during 1904 amounted to 22,693 pounds, valued at $1,349; in 1905, 18,368 pounds brought $1,560.

ARGENTINA.

EXTENSIVE GROWING ZONE.

Mr. E. M. Baxter, B. S., A. M., B. A. S., contributes an interesting article to the Buenos Aires Herald on Argentine Chaco cotton. He says that the cotton land of the Argentine Republic comprises more than 150,000,000 acres, but all of this vast territory is not at present available for the production of this important staple. Owing to the sparse population and to the lack of economical means of transportation, only a few thousand acres can now be profitably planted to cotton, although several million acres are all ready to yield large crops of excellent staple as soon as the farmer takes possession of the land and begins work. Cotton is not an untried crop in the Chaco region. Experiments were begun several years ago and are said to have proved eminently successful, showing that Chaco soil will grow cotton of a superior grade, yielding two bales or more of lint per acre in certain cases, even under the unskilled hands of men who never saw a field of commercial cotton. A careful study of these experiments and of the cotton raised by the farmers leads Mr. Baxter to the conclusion that the cotton zone of the Argentine Republic is susceptible of being developed into one of the most important cotton districts in the world.

KOREA.

JAPANESE STIMULATE TRADE.

Some members of the Japanese House of Representatives recently visited Korea specially to study the question of cotton culture. They

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have returned to Tokyo, and report that the prospect is hopeful. They assert that, at a moderate estimate, the annual crop will be worth about $40,000,000. Japan at present imports yearly from India and elsewhere cotton to the value of $56,000,000, and should this forecast of the Korean production be correct, it will constitute a formidable menace to those who at present supply cotton to Japan and the Far East.

COTTON SEED.

DEVELOPMENT OF THE DOMESTIC INDUSTRY AND EXPORT TRADE.

The recent meeting of the Cotton Seed Crushers' Association, at Atlanta, Ga., brought out some interesting facts in regard to the uses of cotton seed, both for domestic and export purposes. Governor Terrell, who was in early life a cotton grower, said that he remembered well when cotton seed was burned to get rid of it, but last year there were 4,500,000 tons of cotton seed bought from the southern planters and the sum of $75,000,000 was paid to them, thus adding practically 25 per cent to the value in that way of the cotton crop. This has been brought about principally through the cotton-seed oil industry.

There are probabilities of still further developments in the use of cotton seed which will increase the value of that product. Prof. J. H. Connell, of Texas, in speaking of cotton-seed meal as human food made a striking presentation of its value for such uses. He gave a good lesson in the shape of biscuits and cakes made from a combination of cotton-seed meal and wheat flour. They were pronounced as delicate and tasty as any product of the flour barrel by the members of the convention who were given an opportunity to partake of the food. Another use of the seed is that for fertilizer in the shape of meal.

The use of the raw seed to enrich the land was pronounced a waste when the meal can be used to much better financial advantage. Professor Connell said that within a short time he believed cotton-seed crushers of the South would be able to announce an actual discovery of 4,500,000 tons of a new product fit for human consumption. He stated that he had used cotton oil as a cooking fat in his home for six months, and that it was equal in all respects for cooking purposes to the best lard. By an invention of comparatively recent times cotton oil is freed from the old impurities which gave it a rank odor. So-called olive oil which reaches America from southern Europe carries a large percentage of cotton-seed oil. Cotton-seed meal is used in making corn and flour muffins, biscuits, pancakes, gingerbread, dark graham bread, together with cakes of all kinds, and for various other similar uses.

COTTON-SEED OIL GOOD FOR ANIMALS.

The United States Department of Agriculture says that cotton-seed oil is worth for food purposes for animals about double the value of timothy hay, and cotton-seed meal for the same purpose is worth 3½ times as much as corn meal. About $30,000,000 worth of cotton-seed oil is exported, and that is only one-third of the product. Fifteen

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years ago 500,000 barrels of cotton-seed oil were made, which number was increased to over 3,000,000 barrels for the past season.

LARGELY INCREASED CONSUMPTION.

At the recent meeting of the cotton manufacturers at Asheville, N. C., it was stated by President R. M. Miller that over 6,000,000 spindles were installed in England during the past year, and about the same number in America. This indicates the increased demand for cotton. For that reason he thought the day of 5 and 6 cent cotton had gone not to return. The old theory that 10-cent and 12-cent cotton would curtail consumption has been exploded in the last few years. Within twenty years consumption has increased nearly 100 per cent, and it keeps on increasing, while the export demand grows more persistent. Ten years ago the southern cotton mills consumed less than one-half as much cotton as the northern mills, but now the southern mills consume nearly as many bales as those of the North.

INCREASED CONSUMPTION AND THE BOLL WEEVIL.

The consumption of cotton from 1893 to 1898 averaged only 9,000,000 bales annually in the whole world, but from 1898 to 1903 the average was 10,684,146 bales annually, and the average price was 3 cents per pound greater than for the previous period. If the consumption increases at the same ratio during the next five-year period, the average will be nearly 13,000,000 bales annually, and the prices will be much higher than in the previous period. This indicates a prosperous future for the cotton producer and manufacturer as well as for the export trade.

The boll weevil has a detrimental effect on the production of cotton to the extent of a reduction of about 25 per cent in the yield. It was predicted at the manufacturers' convention that by the end of 1908 the weevil will have covered about 50 per cent of the cotton belt and in time that it will extend over the entire cotton field. From that fact it was argued that there would be no reduction in the price of cotton. There was no apparent belief that the increase in foreign production would have any detrimental effect either on prices or on the export trade.

RAMIE.

PROMISING PRODUCTION IN CHINA.

Ramie, a species of gigantic nettle which produces, directly beneath its outer bark, a fiber that can be woven alone or in conjunction with either wool or cotton, and gives to the cloth into which it is woven a beautiful silky finish, is being produced in China at the present time to an extent that promises to make it an important element in the world's commerce, according to the British Empire Review. Unlike cotton, it is not an annual crop; once planted it will produce for a dozen years. It does not ripen evenly, and as soon as one crop is pulled the plant goes on producing again; occasionally, in tropical countries—and it is only in a very warm climate that it can be grown—one plant will give four crops in a year. A good stand of plants will run from 2 to 3 tons of fiber per acre. The only obstacle in the way of the general use of the material in the manufacture of cloth has heretofore been found in the difficulty of removing the gum, but simple machines have now been developed, which, it is said, will do this work satisfactorily and cheaply.

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LEATHER.

SHOES AND HIDES.

FOOTWEAR FOR CHINESE MILLIONS.

OPEN DOOR IN THE EMPIRE FOR AMERICAN ENTERPRISE.

Special Agent Harry R. Burrill furnishes a report on footwear in China which should be given careful consideration by manufacturers of shoes in the United States. The styles of shoes worn by the Chinese, the materials of which made, and methods of manufacture are described in detail, and the opinion is expressed that the Chinese styles can be produced in the United States and sold in successful competition with the hand-made product of the natives. The prospective value of the market can not be estimated with any degree of accuracy. It is estimated that the lower classes expend about $1.50 American money per capita per annum for shoes, while the expenditure of the upper classes varies from $3 to $10 per annum. With a population of 400,000,000 it will be seen that China presents an inviting field for effort on the part of our manufacturers. Samples of the shoes described by Special Agent Burrill are in possession of the Bureau of Manufactures, and will be loaned to manufacturers in the order of application. Mr. Burrill's report follows:

The expenditure for the native-made boots and shoes of China reaches enormous proportions annually, but as yet there has apparently been no systematic effort on the part of foreign manufacturers to enter the field. With so great a demand for footwear, which, it is believed, could be produced by our improved machinery and methods in the large quantities required and at prices below those paid for the hand-made article in China, it would appear that American manufacturers might produce shoes of Chinese patterns and lay them down in the various ports of the Empire under conditions which would enable dealers there successfully to compete with the native goods.

The market is expanding steadily because of the constantly increasing purchasing power of the Chinese, and a careful investigation by an expert would, it is confidently asserted by those in close touch with the situation, disclose conditions and opportunities which the manufacturers of the United States should not ignore.

AN INVITING FIELD.

Chinese boots and shoes are made by the cheapest labor in the world; but it must be remembered that in the manufacture of the enormous

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quantity required no machinery of any kind whatsoever is used. The consequence is that while there is a certain necessary uniformity observed in the cut and pattern, the work is slow, the workmanship poor, and the quality of the materials used unserviceable. It is certainly fair to assume that if the natives of China could be supplied with boots or shoes made in exact accord with the styles popular throughout the Empire, possessing the advantages of better material and workmanship, and greater durability, the consumers would welcome their introduction if the price were satisfactory.

A conservative estimate of the market for Chinese shoes worn by the common classes places the expenditure at $3 (Mexican) per capita a year, while the amount expended by the better classes will vary from $6 to $20 (Mexican) annually. This will afford an idea of the immensity of the demand, but it is obviously impossible, without a comprehensive, expert investigation, even to approximate the amount expended annually in China for foot wear.

MATERIALS IN NATIVE SHOES.

The shoes worn by the natives are made with leather or cotton cloth soles, above which is a layer of rags or paper or feathers, with cotton cloth next to the foot. The uppers are made of cotton sheetings or shirtings, Italians, satins, or velvets, dyed either black or blue. Women are employed to sew together the uppers, which are cut by the shoemaker. After that work has been completed the uppers are returned to the shoemaker, who attaches the sole, and the shoes are then ready for distribution through the native dealers. The best quality may be obtained at retail for $1.40 Mexican a pair; medium quality, $1.20 a pair; cheap quality, 80 cents a pair; cooly shoes, 50 cents a pair, and women's shoes, 70 cents a pair. The women's shoes are those worn by the so-called "reformed ladies," a class whose numbers are constantly increasing, because of emancipation from the cruel custom of binding the feet. These prices are subject to a reduction of 10 per cent when shoes are purchased at wholesale.

BOOTS FOR WINTER WEAR.

In northern China shoes are also universally in use during the warm weather, but with the advent of winter it is the practice of the Chinese to wear what may be called the Chinese boot. This is also made of cotton sheetings, shirtings, Italians, velvets, or satins dyed either black or blue. The leg of the boot, which extends about half way to the knee, is sufficiently large to hold the trousers. The boots have either a leather or a cotton cloth sole, with a layer of paper, rags, or feathers above and cotton cloth next to the foot. A stiff but inexpensive material is used as a lining to hold the leg of the boot in an upright position, and on the outside is the covering of velvet or cotton cloth, as the case may be. The retail prices of these boots vary, according to the material used, but run from approximately $1.25 to $2.50 (Mexican) a pair. Machinery could be utilized in cutting out the material for boots quite as easily as for shoes.

PROSPECTIVE MARKET.

It seems capable of demonstration that an enormous market will eventually be developed for what may be termed army boots. These

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boots are cut on the same pattern as those for ordinary wear, but are made mostly of leather. The soles consist of two pieces of thin leather with a third piece inserted at the heel to give a spring while walking. Above this is a layer of rags or paper, and cotton cloth is placed next to the foot. Smooth, well-tanned leather, presumably imported, is used and, like all other footwear worn by the natives of China, these boots are handmade. The retail price is $3.50 (Mexican) a pair, but a reduction is made when wholesale orders are placed.

In the recent army maneuvers near Tientsin it was estimated that there were 60,000 Chinese troops in the field. This was regarded as the nucleus of a standing army which the Empire purposes to maintain in the future. The size of this army it is obviously impossible even approximately to estimate, but it may be safely assumed that it will be sufficiently large to make a calculation as to the minimum number of pairs of boots that will be required and the amount that will be expended therefor annually both interesting and instructive to American manufacturers.

ADVANTAGE OF EARLY OCCUPATION.

The importance of an immediate investigation of this market by an expert can not be too strongly emphasized. If his knowledge of the cost of production, transportation, handling, and incidental expenses convinces him that boots and shoes, similar in all respects to those now used in China, could be laid down there at a price comparing favorably with that now paid, no time should be lost in introducing them. It may be set down as an incontrovertible fact that in the opening up of a market in China for new goods of whatever description of foreign manufacture, the first "chop" or trade-mark in the field meeting the tastes, the requirements, the whims, the prejudices, and the purchasing power of the natives will become so firmly established and so popular that subsequent attempts to dislodge it by competing nations will be a long, tedious, and, in all probability, an unsuccessful task.

The feasibility of the introduction of American-made boots and shoes of Chinese patterns for Chinese wear was freely admitted by the business men of the Empire, irrespective of nationality, and they found it difficult to comprehend why experts had not already made a more thorough investigation of the conditions, with a view to taking advantage of this enormous and constantly expanding market.

TRADE DEPRESSION.

MANY GERMAN ESTABLISHMENTS IN FINANCIAL STRAITS.

Consul W. C. Hamm, of Hull, furnishes the following interesting account of the depression in the German leather trades. It was printed in an English paper from a special correspondent, and says, in part:

For a series of years the German leather industry has been experiencing a trying time. Complaints of unremunerative business are now more general than ever. During the last three years the reports and balance sheets of most of the leather companies have disclosed a serious reduction of profits, while many weaker concerns, unable to stand the strain, have disappeared. Last year's financial declarations

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told a depressing tale. For example, a number of companies, with one-fourth to one-half million dollars capital, showed deficits of $10,000 to $337,000. Three leather works went into liquidation, four made arrangements with their creditors, two reduced their capital, one lost the whole share capital and disposed of its works, while another at Berlin was compelled to raise $412,500 new preference capital in order to liquidate its bank overdraft. A Mainz concern has not paid a dividend for nine years, and so on.

REASONS FOR TRADE DIFFICULTIES.

Some of the causes are indicated in the reports of the companies affected. The most general is the high price of hides and skins and the inability of leather manufacturers to obtain for the finished product prices commensurate with the advance in the cost of raw material. "Through the high price of calf skins," says one company, "there was hardly any profit, especially on black leathers," while another reports that its losses are due to "high prices of skins." In 1902 this latter firm made a loss of $11,210, in 1903 one of over $75,000, and in 1904 of $2,240, in consequence of which it was compelled in 1905 to cancel part of its capital. A Dresden concern reports that "from America, England, Japan, etc., practically no hides are coming to the German market." To remedy or alleviate some of the effects of this shortage in the supply of hides and skins, an attempt has been made to form a cartel representing four-fifths of the German tanning works, but it proved futile owing to the conflict of interests between the great companies and the weaker concerns.

There are other contributary causes which merit attention. Perhaps the most potent is the chronic overproduction, especially in the sole-leather branch. In its annual report last year the Treves chamber of commerce referred to this tendency in the following striking terms:

> In spite of mutual cooperation the price of manufactured leather has failed to keep pace with the advance in the cost of raw material, undoubtedly due to the overproduction of sole leather. The great tanneries are not prevented either by the high price of hides or by the substantial advance in the cost of imported tanning materials from increasing their output. This increased production of sole leather must have the effect of depressing the market, and all attempts to increase the price have proved abortive. That overproduction exists is shown by the following figures:

Imports of hides and skins (in tons).

	1900.	1902.	1904.
Calf skins:			
Green and salt	4,609	7,268	11,221
Dry	10,125	10,835	9,573
Cattle hides:			
Green and salt	49,025	55,428	68,972
Dry	24,597	27,527	29,009

The exports show, on the other hand, that while foreign hides and skins are being imported in steadily increasing quantities the exports of hides of home production are constantly diminishing—that is to say, the German tanners, so far as a calculation can be made, consume in imported skins alone at least over 52,000 tons a year in excess of the consumption of three years previously. Against these considerations has, of course, to be placed the facts that the herds of cattle at home have not kept pace with the growth of population; that leather from German hides is in rapidly increasing degree used for industrial purposes, leaving the shoe manufacturer more and more dependent on foreign hides, and, finally, that the demand for foot wear has increased with the prosperity of the country. None the less, the fact that the output of leather is largely in excess of the demand must be accepted.

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NEW FACTORIES CAUSE "DUMPING" METHODS.

While this is the case, the overproduction in the boot and shoe industry is equally deplored by the chamber:

> Far beyond the requirements of the market have new factories been established during the past ten years, for the most part without sufficient capital. In many cases a speedy collapse was the sequel. Goods which had been disposed of under cost of production in order to raise money temporarily were now "dumped," and injured thereby the more solidly established firms. Consequently, an increase in the price of shoes, which is urgently demanded, is prevented, and the crisis in the boot trade has reacted on the leather industry, preventing in turn an advance in leather quotations.

One result of this "dumping" of boots has been a more rapid elimination of hand workers, who are now largely driven to lead a precarious existence by repairing. The worst effect of these troubles in the leather trade has, however, yet to be pointed out. Those tanneries which work on old-fashioned lines saw a door of escape from other difficulties in the increase of the duties on imported tanning materials, such as quebracho. In this demand they were, of course, vigorously backed up by the agrarian majority in the Reichstag, which had for many years previously been agitating in the same direction in the interest of the proprietors of the oak forests in north Germany and the Rhenish provinces.

The retort of the leather industry that the resources of the home forests only represent from one-sixth to one-seventh of the requisite tanning material, and that consequently to the industry the free importation of exotic material was indispensable, was of no avail; neither was the Government impressed by the further contention that as modern tanning processes consist of a combination of a variety of materials an artificial increase in the price of quebracho from Argentina could not have any appreciable effect upon the prices of German oak bark. According to the draft of the new German tariff, as presented to the Reichstag, moderate duties were for the first time introduced on all tanning materials. But the Agrarians were not satisfied and endeavored to levy very high rates, which were finally adopted.

PRESENT TARIFF RATES.

By the negotiation, however, of the new commercial treaties some measure of relief has been brought to the sorely tried leather industry. It will in future be able to import from certain countries with which Germany has entered into commercial treaties, together with the "most favored nation" countries, such as Great Britain, supplies of oak bark, sumac, and gall apples, duty free. It will, however, have to pay for every 220 pounds of quebracho 48 cents duty, for liquid extract 96 cents, and for dry extract $1.96 per 220 pounds, while for liquid extract of oak bark, fir, and chestnut the duty is 48 cents, and for dry extracts 96 cents per 220 pounds. Other tanning materials will also be made dearer to the manufacturer by duties of 48 cents per 220 pounds. By these imposts it is estimated that the German leather industry will be burdened to the extent of $1,000,000 annually. When it is borne in mind that the total production of the industry reaches a value of about $112,500,000 yearly, it will be better realized how difficult it will be for tanners to adjust this new burden on raw material over the prices of the finished articles.

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PRICES IN ENGLAND.

An article in the London Times says: "It may be stated that, in spite of the great appreciation of leather values (sometimes as high as 75 per cent to 100 per cent during the past year or so), there has been a good general demand, which shows promise of expansion, and as regards the prospective outlook, particularly as regards values, buyers may confidently purchase their supplies on the basis of present limits, as there is no apparent sign of ease in any direction, nor is there likely to be during the present year."

BRITISH TRADE CONFERENCE.

MANUFACTURERS WARNED OF AMERICAN COMPETITION.

At a recent meeting, largely attended, of shoe manufacturers and others connected with the trade, held at Wellingborough, England, an important speech was delivered by E. Swaysland, the technical instructor to the Northampton classes, in which he told about a visit he made to the United States during the fall of last year. This gentleman has lately published a book on technical shoe manufacture that has given him a high reputation in Great Britain.

In the course of his speech to the manufacturers Mr. Swaysland said that he did not think American competition in the shoe trade had really begun, and he did not think that England would really feel it until America had reduced the cost of her labor. Labor in America costs a great deal more than in England, and the efforts of the manufacturers in the United States, he said, were directed toward reducing the cost of labor. When they succeeded they would become serious competitors in British markets. At present the Americans could only manage to produce for their own country, but they came over to England and "picked our plums" and "hit the manufacturers in the wind" that way.

The Americans selected a few lines on which they made a profit. Americans, however, could not satisfactorily produce other lines, and could not successfully compete with them at the present time. In the British factories they had several lines and qualities going through, but the American did not turn out everything in one factory, and if he had more than one line he had more than one factory, and he turned out the various boots from various factories, each distinct and for a distinct purpose. Hence there was an appearance of better organization.

Mr. Adams, a shoe manufacturer, of Raunds, the town where the great bulk of the shoes for the British army are made, in an address, alluding to American competition, said he thought it had done the British good, but he held that British manufacturers would not have been behind the times had it not been for the old-fashioned ideas of the British buying public. The British public would not buy such freaks and shapes when made at home as came from America. The English people now, however, have copied the American people in the style of shoes, and the British mauufacturers are beginning to

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produce them, which they would have done before had they known the British public wanted them.

This meeting is said to have been one of the most important held in the British shoe trade, and it shows that there is no delusion felt in the minds of the best British experts as to the severe competition which will soon have to be met with in the markets of the world from America.

BRITISH HOME AND FOREIGN TRADE.

In an article commenting on home and foreign trade, the Boot and Shoe Trades Journal, of London, has the following to say about English trade:

There is still the same story to tell of increasing imports of foreign-made shoes. Two years ago the British manufacturers were misled into the belief that American competition was dead. Still, the fact remains that within the last nine months we have purchased $3,000,000 worth of foreign shoes, which is considerably more than was purchased in 1904. By deducting the imports from our exports our net shoe exports for nine months amount to the paltry sum of $3,500,000, which we believe is far less than the net shoe exports of the United States.

There is an increase in the imports of wet hides, but there is an increase of exports also. The same remarks apply to dry hides, so that the situation in regard to these commodities remains practically unaltered. We are in receipt of a good deal less leather, which is probably due more to the poor demand than to the alleged diminution in the supply. Taking the whole of the returns there is little in them for exultation. For our part, we shall believe in prosperity when we see fewer able-bodied men out of work and a big decrease in the ever-advancing poor rate of the country.

IMITATION AMERICAN SHOES IN FRANCE.

Consul D. J. Murphy writes from Bordeaux that shoe stores in that French city bear the signs "American shoes sold here," which he finds are for the sale of footwear made in Paris of French leathers by the use of American machinery and on forms similar to those used in the United States. Mr. Murphy reports that this imitation footwear is not up to the American standard; it is not so comfortable, nor so well shaped, nor so durable, and the price is higher than in the United States.

ADULTERATED LEATHER.

CORRECTION OF PRACTICE RESTS WITH BUYERS.

Hide and Leather makes reply to the recent criticism concerning the adulteration of American leather, copied in the Daily Consular and Trade Reports from the London Times. The statement was that of an English committee which made an investigation. Hide and Leather says:

The question of adulteration of sole leather is not new, nor is it confined to America. There is no special secrecy about the matter, as it is generally known that the adulterants discovered by the English

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chemists are often used in the manufacture of sole leather the world over. And we consider it distinctly up to the buyers and users of leather to decide whether such adulteration shall be continued or not.

We believe it is only fair to tanners to say that they would be perfectly willing to stop using adulterants if a hard-and-fast law against their employment was enforced by customers. If sole-leather buyers insisted on their purchases being absolutely free from adulterants and compelled sellers to give a guaranty to this effect the demand for glucose and epsom salts for the leather trade would be a thing of the past. No doubt, tanners of pure leather have been handicapped from time to time in endeavoring to get orders on account of cheaper but loaded leather being offered in competition. It is not altogether improbable that some sole-leather buyers have preferred cheap leather to pure leather, although they must have instinctively known that the cheapness was more apparent than real.

EXPORTS TO AUSTRALASIA.

A correspondent writing from Sydney, Australia, to the London Commercial Intelligence, says:

Americans are complaining that while their leather exports show a considerable increase in Europe, Asia, and elsewhere, the quantity taken by Australasia is steadily declining. It is the same with Amer ican boots and shoes, the value of the Australasian imports sinking from $1,338,410 in 1900 to $385,652 in the calendar year 1905.

HIDES SCARCE IN LONDON.

A letter from London hide factors to a large American importing house states that the stock of hides now on hand in London "is most miserable. Not only is it small," the writer says, "but if you analyze it carefully there seems to be even less of it than it looks. The stocks unsold in brokers' hands at the end of April were, with the exception of India kips, tanned, very much less than three years ago." The writer says that the increase in tanned kips is also nominal, as the hides sold in the last sale had not been taken away by the buyers and figure as unsold on the docks' books. The writer adds: "The warehouses are empty, absolutely bare of stocks, of either raw or tanned, so it is quite clear that all leather imported has gone into consumption. With these facts, how can we help foreseeing rising prices."

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TRANSPORTATION.

DEVELOPMENT IN SOUTH AMERICA.

FREIGHT RATES AND SHIPPING FACILITIES COMPARED.

THE PANAMA AND MAGELLAN ROUTES—RELATIVE COST OF SHIPMENTS FROM THE UNITED STATES AND EUROPE.

In the annexed letter Special Agent Hutchinson discusses the relative advantages and cost of shipping goods to the west coast of South America by the Isthmus of Panama and the Straits of Magellan, and furnishes a table showing the cost to various points in Peru and Ecuador by each of the routes named, and upon various classes of merchandise. Mr. Hutchinson also makes comparison of cost of shipping goods from European ports and the Atlantic ports of the United States. The report contains much information that will be profitable to persons engaged in trade with the Pacific coast of South America.

An exhaustive report has recently been made by Mr. Joseph L. Bristow to the Secretary of War on shipping facilities from the United States to the west coast of both North and South America. It is unnecessary, therefore, in this place, to enter into a detailed discussion of the subject. Yet there are certain features of the present situation which so directly affect the possibility of future development of American trade in some of the western South American countries that it may be proper to enlarge somewhat on portions of the report above mentioned.

The ports of Peru represent the point of equilibrium, so to speak, in the competition between the Panama and the Straits of Magellan routes of traffic from Europe and the eastern seaboard of the United States to the west coast of South America. Distances via Panama to the entire west coast are the shorter, and the saving of time by this route is considerable. It is therefore preferred for passenger and mail service. But the extra wear and tear on goods, and the additional cost involved in the transfer across the Isthmus, render it less acceptable for the transportation of freights. The bulk of the mails and the majority of passengers take the Panama route as far south as Valparaiso or even beyond, but freights do not as a rule go beyond the ports of Peru. Even at Callao, the chief Peruvian port of entry, it is estimated that no less than 75 per cent (in tonnage) of the freights from the United States is brought by way of the Straits and only 25 per cent by way of Panama. As we go north from Callao to the ports of northern Peru and Ecuador, the proportions gradually change. At Payta (northern Peru) and at Guayaquil (Ecuador), for example, the relative amounts are reversed, 75 per cent coming via Panama and 25 via the Straits.

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THE ISTHMUS AND THE STRAITS ROUTES.

These figures refer to freights from the eastern seaboard of the United States. From Europe the proportions are quite different. At Callao probably 50 per cent of the freights come via Panama and 50 via the Straits. At Payta, though that port is several days' journey north of Callao, the Magellan route claims an even greater share (60 to 70 per cent, it is said), the Panama route getting only 30 to 40 per cent. At Guayaquil it is reported that the proportions coming from both Europe and the United States by the two routes are about alike, i. e., 25 per cent by way of the Straits and 75 by way of Panama.

At first glance these facts are rather confusing. The natural American route seems to be that via Panama. From the purely geographical point of view, if any country is to send its goods to the west coast of South America by way of the Isthmus, it would appear to be the United States that would reap the greatest advantage from it. The journey via the Straits is quite as long from New York as from Liverpool or Southampton; but by way of Panama, New York has an advantage of several thousand miles. How, then, does it happen that Europe sends a larger percentage of its goods to Callao via Panama than the United States does? The facilities offered at Panama being equal for goods of all nationalities, the obvious answer to the above question must be that, considering the relative proximity of New York to Panama, the saving in freights, time, etc., by sending European goods via that route is greater than in the case of American goods. And the published rates of the various American and European steamship lines show that such is the fact.

FREIGHT RATES COMPARED.

In spite of the fact that New York is some 2,500 miles nearer to Colon than European ports, the rates to the west coast of South America are about the same. The figures, reduced to cents, taking Liverpool and New York only as shipping points to make the comparisons less complex, are as follows:

	Class I.		Class II.		Class III.		Class IV.	
	Via Panama.	Via Magellan.	Via Panama.	Via Magellan.	Via Panama.	Via Magellan.	Via Panama.	Via Magellan.
To Callao:								
From New York—	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Per cubic foot	36	.....	31	.....	23	.....	18	.....
Per 100 pounds	64	.....	56	.....	42	.....	34	.....
From Liverpool—								
Per cubic foot	35	33.4	30.4	28.9	22.8	24.3	18.2	16.7
Per 100 pounds	62.5	59.6	54.3	51.6	40.7	43.4	32.5	29.8
To Payta:								
From New York—								
Per cubic foot	37	.....	32	.....	28	.....	20	.....
Per 100 pounds	65	.....	58	.....	50	.....	36	.....
From Liverpool—								
Per cubic foot	36.5	36.5	31.9	31.9	27.3	27.3	20	19.7
Per 100 pounds	65.2	65.2	57	57	48.8	48.8	36	35.2
To Guayaquil:								
From New York—								
Per cubic foot	37	.....	28	.....	25	.....	20	.....
Per 100 pounds	65	.....	50	.....	45	.....	40	.....
From Liverpool—								
Per cubic foot	36.5	.....	27.3	.....	24.3	.....	.....	.....
Per 100 pounds	65.2	.....	48.8	.....	43.4	.....	.....	.....
From Hamburg[a]—								
Per cubic foot	36.5	27.3	27.3	24.3	24.3	21.3	19.7	.....
Per 100 pounds	66.1	48.8	49.6	43.4	44.1	38	35.8	.....

[a] By agreement between the Pacific Steam Navigation Company of Liverpool and the Compañía Sud-Americana de Vapores, the former company is not permitted to carry European freights via the Straits farther north than Peru. The comparison is therefore given in Hamburg freights.

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In the foregoing table the freights from New York via the Straits are omitted for the reason that the two companies controlling the traffic publish no schedules of rates, these being fixed (so it is commonly asserted) for individual shipments to suit the requirements of the particular case. The fact, however, that the bulk of goods from the United States for all Peruvian ports from Callao southward go via the Straits, may be taken as conclusive evidence that, all things considered, it is found more advantageous to ship by this route, so far as those ports are concerned. For ports north of Callao the reverse is true, except as regards bulky and heavy goods.

ANALYSIS OF THE TABLE.

So much for the relative rates from New York via the Isthmus and via the Straits. It is quite another question whether these rates, by either route, are as low as the rates from Europe. The general opinion among importers is that they are somewhat higher, and this opinion seems to be borne out by such schedules as are available. An analysis of the above table shows:

1. As to rates via Panama: On measurement goods, as already stated, the rates from New York and from Europe have long been virtually the same; on weight goods there has, until recently, been a difference of about 11 per cent in favor of Europe. Reductions in the past few months have, however, put the New York rates on virtually the same level as from Europe.

2. As to rates via the Straits: Class for class, the rates from Liverpool via the Straits and via Panama do not differ greatly. To Payta they are the same by either route, except on fourth-class goods, which are shipped at slightly lower rates via the Straits; to Callao they are a little lower via the Straits than via the Isthmus, except on third-class goods, on which the Panama route has some advantage. From Hamburg to Guayaquil the Magellan route is considerably cheaper than the Panama.

COMPARISON ON SPECIFIC ARTICLES.

The comparison by classes is, however, misleading, for the classification via the Magellan route differs in many respects from that which applies to through bills of lading via Panama. A comparison of rates on specific articles shows the following:

To Callao.

Articles.	From New York.		From Liverpool.			
	Via Panama.		Via Panama.		Via Straits.	
	Per cubic foot.	Per 100 pounds.	Per cubic foot.	Per 100 pounds.	Per cubic foot.	Per 100 pounds.
	Cents.	*Cents.*	*Cents.*	*Cents.*	*Cents.*	*Cents.*
Disinfecting machinery	31	56	30.4	54.3	28.9	51.6
Steel axles	18	34	18.2	32.5	16.7	29.8
Locks	31	56	30.4	54.3	28.9	51.6
Sewing machines	31	56	30.4	54.3	28.9	51.6
Medicines, etc	36	64	35.0	62.5	33.4	59.6
Cotton flannels	36	64	35.0	62.5	33.4	59.6
Photographic goods	36	64				
Repairs for machinery	31	56	30.4	54.3	28.9	51.6
Paper (printing)	23	42	22.8	40.7	24.3	43.4
Hoop iron	18	34	18.2	32.5	16.7	29.8
Electric materials	36	64	35.0	62.5	33.4	59.6
Iron pipe up to 6 inches diameter		42	22.8	40.7	24.3	43.4
Copper boiler tubes	23	42				
Brass valves Iron valves	31	56	30.4	54.3	28.9	51.6
Machinery	31	56	30.4	54.3	28.9	51.6
Plow discs	23	42	30.4	54.3	28.9	51.6
Cotton goods	36	64	35.0	62.5	33.4	59.6

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DIFFERENCE IN RATES.

It will be seen that on nearly all of these goods the rates from Europe by both routes are slightly lower than the rates from New York via Panama. The probability is that New York rates via the Straits are kept up pretty close to the Panama rates. The indications are, therefore, that the general opinion that freights from New York by both routes are higher than from Europe is, to a certain extent, justified. It should be added, however, that the difference in rates from Europe and the United States is too slight to constitute a very serious handicap to our trade, except in so far as it emphasizes the prevalent feeling that the relative proximity of the United States to the markets should enable her to enjoy lower rates than Europe, instead of barely equal ones. Among importers, however, one hears very little complaint in regard to the rates in themselves; the criticisms are chiefly connected with the long-continued control of through shipments via Panama by the two principal steamship lines reaching ports on the West coast and connecting lines on the Atlantic side.

Since the United States Government obtained control of the Panama Railroad, contracts with these lines have been abrogated, but sufficient time has not yet elapsed for the changed conditions to have effected any important changes. There are many signs, however, which indicate that important alterations will soon be made. The assurance that all steamship lines between Panama and the west coast will in the future be able to issue through bills of lading instead of being forced to pay (with the exception of the companies just mentioned) the local rates from Panama to Colon will certainly stimulate competition and bring a reduction of rates and an improvement of service. Both the Pacific Steam Navigation Company and the Compania Sud-Americana de Vapores are at present building new and better boats for their west-coast service. A company has recently been organized in Peru, with the hearty support of the Peruvian Government, which has granted them a subsidy amounting to 5 per cent on their proposed capital. The Merchants' Line is already sending occasional ships up the coast to San Francisco. There is at least a possibility that the Pacific Mail Steamship Company will extend its service southward from Panama as far as Valparaiso, and there is a probability that the Kosmos Line will before long cause its steamers to call at Panama. On the Atlantic side the Royal Mail has recently established connections between New York and Colon.

The enterprise of the Peruvian company just referred to is of particular interest, as they are planning for a fast mail and passenger service between Valparaiso and Panama, with calls at only a few of the more important west-coast ports. Their plan, if carried out, will place Lima within twelve days' time of New York.

PROSPECTIVE IMPROVEMENT IN FACILITIES AND SERVICE.

In addition to these possible improvements, the betterments in the dock facilities at Panama and Colon and the double tracking of the Panama Railroad, which are now being rapidly carried out, will unquestionably result in saving of time and freights by the Isthmus route. It does not, therefore, seem too great a stretch of optimism to predict an early improvement of shipping facilities from our eastern seaboard

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to the west-coast ports of South America. American exporters interested in this trade should have their affairs in readiness to take advantage of the changes when they come.

There is one other point deserving of more serious attention than seems to have been given it as yet—the possibility of improved service and increased trade between the Pacific coast of the United States and the west coast of South America. Among the imports of these west-coast countries are many goods which California and her neighbors might provide which are now purchased in New York or in Europe. The lists of imports which I have presented in other reports indicate what these goods are. Lumber, wood manufactures, canned and dried fruits and vegetables, breadstuffs, and cereal preparations, many forms of mining and milling machinery, etc., could be made the basis of a larger trade if shipping facilities were improved. The recent rapid development of California's manufacturing industries under the stimulus of cheap oil fuel is a new factor which lends new strength to the long-entertained desire to build up an export trade from that State to the Pacific States of South America.

CENTRAL AMERICA.

RELATIVE ADVANTAGES OF ATLANTIC AND PACIFIC PORTS—PROSPECTIVE REDUCTIONS IN FREIGHTS—SAN FRANCISCO'S OPPORTUNITY.

In the following report Special Agent Lincoln Hutchinson furnishes valuable information regarding transportation facilities and freights between Central American ports and those of Europe and the east and west coasts of the United States. The facts and figures presented will interest those engaged in trade with Central America, and will prove especially interesting to shippers on the Pacific slope who, Mr. Hutchinson declares, have advantages for direct trade with the west coast of Central America which will bring profitable returns if taken advantage of. Mr. Hutchinson's letter follows:

The physical characteristics of Central America are such that the densest population, and hence the greatest commercial activity, are found on the Pacific slope of the republics. British Honduras lies wholly on the Atlantic slope, but its population and commerce are both small, and it has, therefore, been left out of consideration in the following analysis of the transportation problems of Central America. On neither the Atlantic nor the Pacific lowlands of any of the republics is the population dense. Climatic conditions have caused the inhabitants to seek the plateau and mountainous regions; there are no large towns on either coast; the capital cities and all important centers of population are in the interior at elevations ranging from 1,000 to 5,000 feet, and as the central backbone of mountains is nearer the Pacific than the Atlantic, the center of population lies on the Pacific side.

Thus it results that the commercial approach to these countries, as a whole, has been made from the Pacific. In Guatemala, Honduras, Salvador, and Nicaragua about seven-eighths of the foreign trade passes through Pacific ports; and even in Costa Rica the completion of the

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railroad from Puerto Limón on the Caribbean Sea to the capital has not wholly stopped the importation or exportation of goods via Pacific ports.

DISTANCES TO NEW YORK AND SAN FRANCISCO.

Over against the advantage which the west coast (more properly, southwest coast) has through its proximity to the populated areas, must be set another advantage which is found on the east (northeast) coast—nearness to the great commercial centers of Europe and America. From New York to Puerto Limón (Costa Rica), Grey Town (Nicaragua), or Puerto Barrios (Guatemala), is approximately 2,000 miles, while the distances from San Francisco to corresponding ports on the Pacific side are: To Punta Arenas (Costa Rica), 3,100[a] miles; to Corinto (Nicaragua), 2,870[a] miles, and to San José (Guatemala), 2,565[a] miles. From New York via the Isthmus of Panama, the distances to the Pacific coast ports exceed those to Puerto Limón, Grey Town, and Puerto Barrios, as follows: To Punta Arenas, 500 miles; Corinto, 780 miles, and San José, 1,080 miles. From Europe the distances are approximately 2,500 miles farther than from New York to both coasts of Central America.

As a mere question of transportation, therefore, the future importance of the west coast as compared with the east coast depends upon a double set of rates, the cost of carrying goods to the east-coast ports plus the cost of carrying them thence to the centers of population in the interior, compared with the cost of transportation to the Pacific coast ports plus the internal freights on that slope. In all the countries except Costa Rica the cost of transportation from the eastern ports is virtually prohibitive. There has been some traffic from Grey Town into the interior of Nicaragua via the San Juan River and Lake Nicaragua, but that has now ceased, temporarily at least. There are plans afoot for opening railroads both here and in Guatemala, but at present Costa Rica alone has any real transportation facilities on the Caribbean side. The most useful comparisons of rates are therefore to be made in this country.

SEA AND INTERNAL FREIGHTS.

The question, as already suggested, is a twofold one; both sea freights to Central America and internal freights within Central America must be considered, and this can best be done by examining them separately.

First, sea freights to Central American ports. A sufficiently clear idea of the situation is given by comparing the rates to chief Central American ports from Europe, from New York, and from San Francisco. The following figures (and all rates quoted in this report) are taken so far as possible from actual bills of lading. Where this has been impossible, the published schedules of the steamship lines concerned have been used. There are undoubtedly some cases in which rebates are allowed or in which certain alterations may have been made, but the figures in the tables are probably a close approximation to the actual average charges:

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[a] These are distances with stops at way ports. Direct routes are much shorter.

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Typical freights from New York and European ports to Puerto Limón, Costa Rica.

[Reduced to cents per cubic foot or 100 pounds.]

Article.	Port.	From Europe.	From New York.
Iron cot.....per cubic foot..	Southampton.....	$0.15.2	$0.16.0
Iron bedsteads.....do....	.....do.....	.15.2	.16.0
Do.....do....	Manchester	.15.2	.16.0
Wire netting.....do....	Southampton.....	.15.2	.16.0
Earthenware.....do....	.....do.....	.12.2	a.16.0
Wine, in casks.....do....	Bordeaux	.21.4	.....
Do.....do....	Barcelona	.13.1	.....
Wine, in bottles.....	New York	.....	a.16.0
Shellfish, canned.....per 100 lbs..	Barcelona	.43.3	b.52.1
Codfish.....per cubic foot..	Hamburg.....	c.52.9	.16.0
Biscuit.....do....	London.....	.17.2	.16.0
Apollinaris .....do....	.....do.....	.17.1	.16.0

a or $0.40 per 100 pounds. b or $0.16.8 per cubic foot. c Per 100 pounds.

COMPARISON WITH EUROPEAN RATES.

With one or two exceptions in the above list rates from New York are somewhat higher than from European ports. The differences in favor of Europe are greater at the northern ports of Central America. Hamburg rates, for example, are only about one-third higher to Puerto Barrios (Guatemala) than to Puerto Limón, whereas New York rates to Puerto Barrios range from 25 to nearly 200 per cent greater than to Puerto Limón. The following figures illustrate the differences:

From New York.	To Puerto Limón.	To Puerto Barrios.
Beer.....per 40 cubic feet..	$6.40	$12.00
Beans and peas.....per 2,000 pounds..	8.00	12.00
Flour in sacks.....do.....	4.10	12.00
Iron, bar, sheet, rod, etc.....do.....	8.00	12.00
Lumber.....per thousand..	12.00	15.00
Illuminating oil.....per 40 cubic feet..	6.40	12.00
Barbed wire.....per 2,000 pounds..	7.00	12.00
Salt.....do.....	4.10	12.00

These figures illustrate the well-known fact that although New York is some 2,500 miles nearer to Central America than the principal European ports, and although our trade with Central America is as large as that of England, Germany, and France combined, yet freights from New York are certainly no lower than those from Liverpool, Southampton, or Hamburg, and in some instances, at least, are much higher. If the distances from the United States and from Europe were nearly equal, or if the amount of goods offering for transportation were relatively small, as in the case of many of the countries of South America, this state of affairs could easily be understood, but under existing circumstances, it is hard to explain. However, whatever the explanation may be, the fact is that the United States does not get the benefit of proximity to Central America which might be expected. In mail and passenger communication we do get such benefit, and this probably goes a long way toward explaining our preponderance in the Central American markets; but so far as mere freight charges are concerned we have no advantage over Europe.

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RATES TO COSTA RICA.

Turning now to the rates from the Atlantic and Pacific coasts of the United States to Central America, we find the following typical freights from New York and San Francisco to Costa Rica:

[In dollars per ton of 40 cubic feet, or 2,000 pounds.]

Articles.	New York to—		San Francisco to Punta Arenas.
	Puerto Limón	Punta Arenas (via Panama).	
Beer ..... per ton measure..	$6.40	a $14.80	$7.00
Beans and peas ..... per ton weight..	8.00	a 14.80	7.00
Corn ..... do....	8.00	a 14.80	7.00
Flour, in sacks ..... do....	4.10	a 14.80	6.00
Cattle ..... per head..	75.00	.....	50.00
Horses ..... do....	75.00	.....	60.00
Sheep ..... do....	25.00	.....	5.00
Lumber ..... per thousand..	12.00	20.00	12.00
Iron, bar, rod, sheet, etc ..... per ton weight..	8.00	a 14.80	9.00
Do ..... per ton measure..	6.40	.....	.....
Malt ..... do....	16.00	a 14.80	8.00
Illuminating oil ..... do....	6.40	10.00	10.00
Rice ..... per ton weight..	8.00	13.00	8.00
Salt ..... do....	4.10	a 14.80	7.00
Barb wire ..... do....	7.00	a 14.80	c 7.00
Cordage ..... per ton measure..	6.40	a 14.80	8.00
Dried fruit ..... do....	6.40	a 14.80	b 11.40
Canned salmon ..... do....	6.40	a 14.80	b 11.40
Canned fruit ..... do....	6.40	a 14.80	b 8.40

a Per ton measure or $13.00 per ton weight.
b The rates usually quoted on dried and canned fruits, canned salmon, etc., are $8 per ton. The above figures, however, are taken from freight bills on shipments actually made.
c Per ton measure.

NOTE.—The above rates are for small lots, less than 5 tons; on larger lots there is usually a considerable rebate.

NEW YORK AND SAN FRANCISCO COMPARED.

As might be expected, freights from San Francisco to Punta Arenas are cheaper than from New York (with the single exception of illuminating oil), in spite of the fact that the distance from New York via Panama is five or six hundred miles shorter than from San Francisco (2,500 miles against 3,147). The transfer across the Isthmus partly accounts for the difference. From New York to Puerto Limón the rates in general are lower than from San Francisco to Punta Arenas. This, too, might be expected, the distance being eleven or twelve hundred miles less between the first two than between the last two. But there are a few of the items in the list which show a higher rate for the 2,000 miles' run from New York than for the 3,100 miles from San Francisco. These are beans, pease, corn, malt, and live animals. On lumber and rice the rates are the same by both routes. Primage from New York is 10 per cent; from San Francisco, nothing.

RATES TO GUATEMALA.

In the rates to Guatemala there is a greater difference in favor of San Francisco, as will be seen by the following typical freights from New York and San Francisco:

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[In dollars per ton of 40 cubic feet or 2,000 pounds.]

Article.		New York to —		San Francisco to San José.
		Puerto Barrios.	San José via Panama.	
Beer	measure..	$12.00	a $14.80	$7.00
Bran	do....	12.00	a 14.80	b 12.00
Beans and peas	weight..	12.00	c 13.00	7.00
Cement	do....	7.10	13.00	7.00
Doors, etc	measure..	12.00	a 14.80	8.00
Flour, in sacks	weight..	12.00	c 13.00	6.00
Hay, in compressed bales	do....	12.00	c 13.00	16.00
Iron, bar, rod, sheet, etc	do....	12.00	c 13.00	9.00
Nails, spikes, etc	do....	12.00	c 13.00	8.00
Machinery (except heavy lifts)	measure..	12.00	a 14.80	a 8.00
Oats	do....	12.00	a 14.80	b 12.00
Illuminating oil	do....	12.00	14.00	10.00
Rice		b 12.00	b 13.00	b 8.00
Salt		b 12.00	c 13.00	b 7.00
Wine	measure..	12.00	a 14.80	8.00
Barbed wire	do....	b 12.00	a 14.80	7.00
Lumber	per 1,000 ft..	15.00	24.00	12.00
Shingles	per 1,000..	4.50	.....	2.00

a By measure or $13 per ton weight. b By weight only. c Or $14.80 per ton measure.

NOTE.—Special rates on lots of 5 tons and upward.

It appears therefore that, with few exceptions, rates from San Francisco are lower, not only than those from New York and Europe via Panama, but also than those to corresponding ports on the Atlantic side of Central America. San Francisco shippers have an advantage so far as mere cost of transportation is concerned. In time, however, they are at a disadvantage, the voyage from San Francisco to San José de Guatemala occupying from fourteen to sixteen days and to Punta Arenas twenty days, while from New York to corresponding ports on the opposite coast requires only eight or ten days.

RAILROAD ADVANTAGES.

In the four northern republics, where transportation facilities on the Atlantic slope have not yet been developed, this advantage in sea freights is emphasized by a further advantage in land freights. In Costa Rica, on the other hand, the Northern Railway gives through rail connection from Puerto Limón to the capital, San José, and much freight is carried to the interior by that road, which before its construction was imported via Punta Arenas. The rail freights from Puerto Limón are extremely high, but are kept at such a point that they give importations by that route a bare advantage. The actual cost of carrying goods from New York to San José (steamship and railroad freights combined) is in most cases a little less than the cost from San Francisco via Punta Arenas. On a few lines of goods, it is true, the costs from San Francisco are a little less, but not enough to counteract the influence of the quicker service from New York. Thus it happens that certain typically California goods go to Costa Rica from New York rather than from San Francisco, such, for example, as dried and canned fruits and vegetables.

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Following is a list of some of the principal goods which might be shipped to Costa Rica from San Francisco, but which are at present imported mainly from the Atlantic States:

Relative amounts of chief articles imported into Costa Rica, 1905, from the Atlantic and Pacific States. (*Values in United States dollars.*)

Article.	From Atlantic coast.	From Pacific coast.	Percentage from Pacific coast.
Codfish	$30,135	$43	0.1
Other fish	24,423	769	3.1
Beef, salt or pickled	27,906	201	.7
Other preserved goods, except fruits	12,441	555	4.3
Wheat flour	335,559	6,122	1.8
Corn meal	12,321	129	1.
Other meal	3,702	27	.7
Crackers	9,701	441	4.3
Fresh vegetables	366	51	12.2
Beans (frijoles)	15,880	595	3.6
Fruit:			
Fresh	3,305	75	2.2
Preserved	1,925	472	19.7
Dried	2,028	245	10.8
Wine:			
White	44	400	90.1
Red	1,543	661	30.
Cordage	17,944	469	2.6

Some of the articles in this list are, beyond doubt, chiefly of Pacific coast origin, such as the canned and dried fruits and vegetables, the wine, and a good deal of the fish; yet the Pacific coast sends but a small percentage of them to Costa Rica direct. They go to New York and other eastern points and are reshipped.

QUESTION FOR PACIFIC COAST SHIPPERS.

A question of vital importance to Pacific coast shippers is whether this is a necessarily permanent condition. There are many indications that it is not, and that our western merchants can secure a good direct trade if they are prepared to take advantage of important changes which are promised in the near future. Taking San José, the capital of Costa Rica, as a common point, the present conditions are as follows: Goods from New York (and Europe) are shipped to Puerto Limón, and from there direct by rail, 102 miles, to San José. From San Francisco, on the other hand, they go to Punta Arenas; thence by rail, 13½ miles, to Esparta; then by ox cart, 15 miles, to Santo Domingo, and finally by rail, 41 miles, to San José. The 15-mile cart haul usually costs more than the 3,100 miles of sea freight and the 55 miles of rail freight combined, averaging $12 per ton (somewhat less in the dry season and considerably more in the wet).

PROSPECTIVE REDUCTION.

But the Costa Rican Government is now rapidly pushing the construction of a road to close the gap of 15 miles between the railways, and it is probable that before the end of the present year there will be an all-rail route from Punta Arenas to San José. The government will own this railway, and strong assurances have been given that the freight rates on the completed line will be the same per mile as hold at present on the two sections now in operation. If this promise is

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fulfilled there will be a great saving in through freights from Puntarenas to San José, with corresponding advantage to all importers via the Pacific coast port. The following table illustrates the probable extent of the change. It shows freights to San José, Costa Rica, from Puerto Limón and Punta Arenas.

Article.		From Puerto Limón.	From Punta Arenas.	
		All rail.	Present rate: Rail and cart.	Possible future rate: Rail.
Beer	per 100 pounds	$0.90	$0.94.6	$0.44.9
Beans and peas	do	.81.2	.88.8	.37.4
Corn	do	.56.3	.88.8	.37.4
Flour	do	.81.2	.88.8	.37.4
Iron, bar, sheet, etc	do	.81.2	.88.8	.37.4
Barbed wire	do	.81.2	.88.8	.37.4
Cordage	do	.90	.94.6	.44.9
Dried fruit	per cubic foot	.47	.32.8	.20.7
Canned fruit	do	.47	.36.7	.20.7
Canned salmon	do	.47	.42.2	.20.7
Canned oysters	do	.47	.35.8	.20.7
Illuminating oil	do	.47	.56	.20.7

It is not to be supposed that the rates on the Northern Railway, from Puerto Limón to San Jose, will remain as high as they now are after the completion of the new road. They are almost certain to fall; but the fact that this road is some 30 miles longer than the new one, that it runs through more difficult country, and that it must pay dividends on a high capitalization, will, under competitive conditions, tend to keep the rates permanently higher than the new rates from Puntarenas. The completion of the new railway will, therefore, undoubtedly stimulate trade between our Pacific States and Costa Rica. The extent of this stimulation will depend upon what reductions in freights the Northern Railway and the steamship lines from New York to Puerto Limón may be able to make.

GREAT CHANGES PROMISED.

In two other Central American countries, Nicaragua and Guatemala, great changes in transportation facilities are also promised for the near future. In Nicaragua the Government has recently contracted a loan for one million pounds sterling, a part of which sum is to be devoted to the building of a railway from Monkey Point, between Bluefields and Graytown, on the Caribbean Sea, to the eastern shore of Lake Nicaragua. This will give lake and rail transportation from the Caribbean to Managua, the capital, and the surrounding most thickly populated section of the country. At the same time it is possible that the route from Graytown via the San Juan River and Lake Nicaragua, recently abandoned, will be reopened. The distance to Managua, however, by either of these routes, is from two to three times as far as from the Pacific port of Corinto, which has the additional advantage of possessing a fairly good harbor; and even after the completion of the new plans (which is by no means assured) the Pacific route is likely to remain the cheaper.

COMPETING RAILROAD IN GUATEMALA.

In Guatemala the project for establishing all-rail connection with the east coast seems much nearer realization. Steps have already been

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taken for the rehabilitation of the old railway from Puerto Barrios to the interior and the filling in of the 60-mile gap between its terminus and the capital—Guatemala City. It is thought that the road will be in operation within a year or eighteen months. If the opening of this through rail connection between Puerto Barrios and Guatemala City results in competition in rates with the Southern Railway (from Guatemala City to the Pacific port of San José), as it surely will unless some sort of combination is effected between the two roads, it will reduce the cost of importing goods from our Pacific coast States. The present rates on the Southern, which are noncompetitive, are extremely high. It is altogether probable that competition will bring reductions which will keep the cost of transporting goods to Guatemala City from San Francisco lower than from New York. New York shipments must be carried approximately 2,000 miles by sea and 170 miles by rail, while from San Francisco the sea distance is but little more (2,500 miles) and the rail distance is much less (74½ miles) through a less difficult country than the new road will traverse.

PACIFIC COAST ADVANTAGE.

In general, therefore, we may conclude that so far as transportation charges are concerned our Pacific coast exporters not only have certain advantages in the Central American market, but that these advantages are likely to remain permanent. In Costa Rica the opening of the all-rail route to the Pacific will be of direct assistance, while in Nicaragua and Guatemala the contemplated connections with the Caribbean coast are not likely seriously to reduce the advantages which the Pacific routes now hold. Just what is going to be the result of the opening of the Tehuantepec route it is difficult to say, but the cost of transshipment from steamer to rail and back again from rail to steamer will be a handicap which will probably continue to give the all-steamer route from San Francisco an advantage except as to time and as to certain high-class goods.

It being a fact that our Pacific coast holds this advantage in the matter of transportation facilities, the question naturally follows why is it that our Pacific coast trade with Central America is relatively small? There are many reasons, the mention of the more obvious of them will indicate their nature.

1. Many goods that are in active demand in Central America are not at present produced in our Pacific coast States, and there are few such goods that can stand the rail freights from eastern points to San Francisco for shipment south. Points from Chicago westward do ship some articles of high value compared with weight or bulk via this route, but they are the exception rather than the rule. If the west (California, for instance) can build up manufactures under the stimulus of cheap oil fuel, there are many articles for which a market could be found in both Central America and western South America. Wire, nails, hardware, mining machinery, furniture, glassware, bottles, etc., may be mentioned as examples.

2. Many goods of local production on the west coast, such as California canned and dried fruits and vegetables, and wines, are sold only at abnormally high prices in our western markets. California producers have for many reasons found it to their advantage to permit the marketing of their goods to pass into the control of eastern middlemen.

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Central and South American importers can, consequently, in many instances get better prices on such goods in New York or Chicago than in San Francisco. Whether such arrangements are to remain permanently advantageous under conditions of increasing demand in Spanish America is a question for producers to determine.

GERMAN COMPETITION OVERESTIMATED.

3. There is an unaccountable tendency on the part of many of our exporters to overestimate the seriousness of foreign competition in Central America. In discussing the trade of these countries with numerous "travelers" for American houses one is struck with their exaggeration of what the Germans, in particular, are doing in these markets. The common answer to the question why our trade is not larger is that the Germans are driving us out. This is partially true of a few lines of goods, but as a general statement it is utterly without foundation, and the sooner our exporters get rid of the idea the better it will be for them. It is unnecessary to repeat here the statistics which have been presented at length in other reports. Suffice it to say that in most of the more important articles of Central American import the United States not only holds the bulk of the trade, but is increasing her share of the total.

"GOOD ENOUGH" GOODS.

4. There is a tendency among some of our exporters to regard inferior grades of goods as "good enough" for Spanish America. Many of the goods characteristically Californian, for instance, such as canned and dried fruits and vegetables, are of the nature of luxuries in Central America. They are consumed mainly by the wealthier classes, who are able and willing to pay good prices, who know how to distinguish between different grades of goods, and who in return for their money demand the best. Much injury is done to the reputation of our goods through attempts to "dump" poorer grades.

5. With notable exceptions, there seems to be a lack of persistence and enterprise in "pushing" Pacific coast goods. A single example will illustrate. California wine is well liked in Central America, where known, but there is little evidence that much effort is made to make it more widely known. The bottled wines, in general, are too high priced to sell well in competition with European, but wine in barrels does fairly well. When imported thus, however, and bottled in Central America, the work is often carelessly done; there is no uniformity in the shapes and sizes of bottles; they are untidily sealed, and are often without either caps or labels. In this form it does not advertise itself as it might if our exporters by organized effort could insure proper handling, could furnish labels and caps, or even set up bottling establishments at principal points.

6. And finally must be mentioned once more the oft-recurring difficulty in regard to inferior packing and unwillingness to grant credits, which are a characteristic—fortunately decreasingly so—of all American export trade.

In closing it remains only to repeat the conviction expressed in several previous reports that an increased market for Pacific coast goods is a possibility not only in Central America, but on the whole west coast of Spanish America as far south as Peru, and for some goods as far even as Chile.

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WATERWAYS.

NAVIGATION ON DANUBE.

CHEAP TRANSPORTATION HELPS ROUMANIA AND BULGARIA.

Consul Thomas E. Heenan, of Odessa, sends a comprehensive article on the steamboat operations on the Danube River, of which the following is an outline:

The transportation lines plying on the Danube are the Russian Steamship Company, owned by the St. Petersburg Government; the Imperial Austrian and the Hungarian steamship companies each receiving an annual subsidy of $250,000, and the Roumanian and Servian Government steamship lines. The Russian line operates 10 steamers, 42 barges, and 6 kerosene barges, plying between Odessa, Batoum, and Black Sea ports and Danube River points from Sulina, at its mouth, to Galatz, Braila, and the Roumanian town Tournou Severin and the Servian town Kladovo. At Tornou Severin it transfers freight for Austro-Hungarian points to the subsidized companies of the dual monarchy, receiving in return any freights destined for Russian ports. Russian oil barges, however, go up the Danube to Belgrade, the capital of Servia.

Besides the foregoing there are numerous private companies on the Danube, generally sailing under the Greek flag, and carrying principally grain from the ports of Roumania, Bulgaria, and Russia, to Braila, Galatz, and Toulin, from which the grain is transshipped on marine vessels to other European points. River freight rates are extremely low, but the Greek shipowners can carry on traffic in competition with the government-supported lines, owing to the fact that they spend nothing on administration and buy and sell the grain they transport. The present state of navigation on the Danube tends to develop the agricultural industry of Roumania and Bulgaria, which have been at no expense in securing the splendid channel. Europe, on her own account, cleared the mouth of the Danube, made a fine port at Soulina, with 24 feet harbor depth, deepened the channel from Soulina to Braila, and by means of a constant international committee, possessing its own dredging machines, keeps the river in good navigation. This is kept up by a special duty paid by European ships coming for cargoes on the Danube. Roumanian grain, naphtha, and kerosene also possess extra shipping facilities through the canal to Soulina, all at low freight rates. In effect, Austria-Hungary and Russia keep up their steamship companies on the Danube and, competing one with the other, work for the good of Roumania and Bulgaria.

EXTENDING AUSTRIAN COMMERCE.

NEW STEAMSHIP LINES TO SOUTH AMERICA—TRAFFIC ASSOCIATION.

From Trieste comes the British consular report that a new Austrian steamship company, to be known as the "Unione" Società Anonima di Navigazione, with a capital of $2,080,000, to be increased to $4,165,000, is to be formed there. One-third of the capital will be

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furnished by the Austrian Lloyd Steamship Company, and the remaining two-thirds by the "Unione Austriaca," formerly the "Austro-Americana." The company will commence operations in September next by inaugurating a monthly passenger and goods service with Brazil and Argentina. At the beginning of 1907 the service will be doubled, the departures taking place every fortnight to and from Brazil and Argentina. The fleet will be composed of three cargo steamers of the Austrian Lloyds and three passenger steamers of the "Unione Austriaca." Two new passenger steamers will be added and three new steamers ordered.

The consul reports that, in view of the increase of traffic which will pour into the port of Trieste through the new railways, the principal Trieste forwarding agents have formed themselves into a limited company under the name of the "Adriatica" Società Anonima di Spedizioni ("Adriatica" Forwarding Company, Limited). The Austro-Hungarian Government has recently approved the statutes of the new company.

STEAMSHIP OPPORTUNITY.

CHANCE FOR PROFITABLE LINE TO ARGENTINA AND URUGUAY.

Mr. E. C. O'Brien, minister to Uruguay, forwards clippings from the Buenos Aires Standard referring to the question of subventions of steam packet companies and comments as follows:

A perusal of these newspaper articles will show that the sentiment in Argentina is opposed to the paying of such a large subsidy ($672,000 gold annually) for the sole purpose of having mercantile tonnage under the Argentine flag. I believe that if the proper efforts were now made that the Argentine Government could be induced to join with the United States in the establishment of a Pan-American line between New York and the River Plate with half the tonnage under the Argentine and the other half under the American flag.

The proposition, if made by an American corporation to the Argentine Government for the establishment of a rapid line of steamers between New York and River Plate, under the Argentine flag, for an amount equal to two-thirds of the subsidy provided by the Argentine subsidy act, would at least prevent the granting of the subsidy provided in said act from going to a European line. It seems to me that there should be sufficient enterprise in the United States to take up the matter on account of the great commercial value such a line would be to American interests. I earnestly submit these suggestions for the consideration of American enterprise.

MAIL STEAMER PROPOSALS.

BIDS INVITED FOR SERVICE TO BRITISH HONDURAS.

Consul W. L. Avery, of Belize, writes that the Government of British Honduras will consider proposals for carrying the mails between that colony and the United States for five years from January 11, 1907.

The present mail-carrying contract is held by the United Fruit Company, the subsidy being $12,000 for a weekly steamer leaving New

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Orleans on Thursdays, upon arrival of the fast mail from New York, and scheduled to reach Belize at 8 a. m. on the following Monday. But the steamer has usually arrived there twelve hours ahead of time. Returning, the mails close at 9.30 a. m. Fridays. The subsidy paid by British Honduras is not the only postal revenue received by the steamship line, as they also carry part of the mail from the United States to Gautemala and Honduras, receiving, it is said, about $10,000 from these two Republics.

The Belize post-office received and dispatched for 1905 161,000 letters, 12,000 post cards, 100,350 books and circulars, and 3,500 parcels (newspapers not given). Proposals to carry the mail should reach the colonial secretary, Belize, by September 30 and state the port or ports to which it is proposed to run, schedule, subsidy demanded, and, if passengers and freight are also carried, the rates to be charged.

HONDURAS.

BETTER NAVIGATION BY CANALS.

Consul F. S. S. Johnson, of Puerto Cortes, makes a report on the completion of canals connecting Alvarado Lagoon and Chamelicon River with the Bay of Puerto Cortes, Honduras. He writes:

Adjoining the port of Puerto Cortes and the bay is the Alvarado Lagoon, 2 miles wide by 3 miles long, with a depth of water from 6 to 14 fathoms, a splendid land-locked harbor. The Ulna Commercial Company, with headquarters at Puerto Cortes, have completed a ship canal from the bay of Puerto Cortes to Alvarado Lagoon. The company has also completed a canal from Alvarado Lagoon to the Chamelicon River, 3 miles. Its boats and barges navigate that river 50 miles or more, and are now busy in carrying fruit to this port.

RAILWAY EXTENSIONS.

NEW BOLIVIAN CONTRACT.

AMERICAN FIRM TO HAVE BUILDING OF SEVERAL LINES.

Under date of April 18, 1906, Mr. William B. Sorsby, American minister to Bolivia, reports from La Paz that an agreement has been reached between the Bolivian Government and American capitalists with respect to the construction and ownership of the proposed system of Bolivian railways, and that the contract in its completed form will be submitted to the Bolivian Congress at its regular session, convening August 6, for ratification. The contract will provide for the commencement of work immediately after its approval and signature by the Executive of Bolivia and the American capitalists, respectively, and as soon thereafter as a working organization can be formed. In his dispatch the minister writes, in part, as follows:

The City National Bank and Messrs. Speyer & Co. agree to form a company to build, or have built, and to own and operate the proposed

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Bolivian system of railways. The effective capital of the company to be $26,766,000, $12,166,000 of which to be furnished by Bolivia and $14,600,000 by the bankers. The company will have an option, to be exercised not later than 1909, on public lands, to be selected in any part of the country where such lands now exist, at their present legal value, about 1¼ cents American gold per acre for agricultural lands. Exemption from all national, State, and municipal imposts and taxation upon all properties and purtenances of the railways built and operated, and exemption from all import dues upon all material and supplies imported for the construction, maintenance, and operation of the said system, or any portion thereof, for twenty-five years, is also conceded by the Government.

The system of Bolivian railways comprised in the agreement or contract is as follows:

Railway.	Approximate length.	Cost.
	Miles.	
Viacha-Oruro	125	$4,000,000
Oruro-Cochabamba	130	5,600,000
Oruro-Potosi	200	8,000,000
Potosi-Tupiza	150	5,600,000
La Paz-Puerto Pando	200	10,000,000

It is understood that only the first section of the La Paz-Puerto Pando line is covered by the agreement, and that after the completion of the Viacha-Oruro, Oruro-Cochabamba, Oruro-Potosi, and the first section of the La Paz-Puerto Pando lines the conditions of the country will be such that it will be feasible to arrange additionally for the completion of the La Paz-Puerto Pando and the construction of the Potosi-Tupiza lines.

The obligation of the bankers under the agreement is confined to the expenditure in railway construction and equipment of the $26,766,000 in the proportion of 40 per cent for Bolivia, as represented by her deposits with the bankers, and of 60 per cent on the part of the company formed by the bankers.

AUSTRALIA.

INCREASED FACILITIES AND EARNINGS.

Consul-General John P. Bray, of Melbourne, reports that practically for the first time on record the railways of Australia during 1905–6 will more than pay full interest on capital expenditure:

In 1902–3 there was a net deficit after paying interest of approximately $7,041,825, while in 1902–3 the deficiency was $3,552,545, and last year only $1,951,466. The results in 1904–5 were very satisfactory, for the railways in Australia are not run for large profits, and in very many instances costly lines have been built in advance of, but with the desire to aid, settlement. Any material increase in the population of the country would be immediately reflected in the earnings of the Australian railways, which promise to become shortly a much more valuable asset than in the past. The Victorian and New South Wales railway revenue for the first nine months of the present financial year (to March 31) aggregate $29,788,638, an increase of $2,629,944

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over the previous year. The New South Wales returns are exclusive of tramways, which also show a good gain. Good progress has also been made in Queensland, south Australia, and western Australia.

The Australian department of external affairs, which is now administering British New Guinea, is calling for bids for a monthly steamship service between the State of Queensland and New Guinea. The compulsory ports of call are to be Cairns and Cooktown, and Port Moresby, Samari, and Woodlack Island, but the contractors are at liberty to call at intermediate ports and places if they so desire. The service is to begin on July 1.

COLOMBIA.

PROPOSED MAGDALENA VALLEY LINE.

Consul L. T. Ellsworth, of Cartagena, reports that the Colombian Government has given an additional contract for the construction of a railway, which is to extend from the port of Rio Hacha to Valledupar, on the Magdalena River.

The Government gives a subvention of $4,000 gold for each kilometer (0.62 of a mile) of the new railway constructed. The contractor is required to give a bond of $20,000 gold as a security for fulfillment, the bond to be canceled upon completion of the first 40 kilometers of the railroad. It is understood that Cleveland (Ohio) capitalists are interested in this enterprise.

AUTOMOBILES.

MOTORS IN EGYPT.

CAMELS FOR INSPECTION TOURS GIVING WAY TO MACHINES.

Consul-General L. M. Iddings reports from Cairo that Egypt is a poor country for automobiles, but prospects for their use are better. He writes:

They can be used now only for a few miles in and about Alexandria and Cairo. There is no road proper from Alexandria to Cairo, only camel paths. At Cairo the longest drive is 8 miles out to the Pyramids and 4 or 5 miles in the other direction to Abbassiah. The trip has been made to Ismailia, but the road is terrible. However, many automobiles are seen in both cities, and it is asserted that a large garage will be constructed in Cairo for next winter. The Government also will use automobiles in the police inspection service in the desert region lying between Edfur and the Red Sea—that is the gold-mining country which is now being considerably exploited. The desert offers almost natural roads, and it is estimated that it will cost only from $5 to $10 per mile to make them perfect. The experiment has succeeded well so far, and police inspection, formerly made on camels and consuming for each trip six weeks, can now be made in two weeks. The main obstacle the machines encounter is the drifting sand and the heat. There are two agencies in Cairo for selling automobiles and two in

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Alexandria. Machines are registered in Cairo to the number of 175 and 66 in Alexandria. There is an automobile omnibus company in Cairo with a capital of $500,000. At present four automobiles are running and eleven more will be put on soon. For the benefit of motor-car manufacturers I give the following extract from a memorandum of the governor of the Sudan:

A car of suitable design for the Soudan should embody the following details: Powerful engine; metal wheels; substantial gear-box, with high and very low gears; efficient radiation; clutched to withstand frequent slipping; strong springs; weight suitably distributed on the frame; carrying capacity for large supply of fuel and water, spare parts, and a certain amount of luggage; and all working parts must be carefully inclosed as a protection against sand.

Motor cars for the eastern desert district of Egypt (the mining district), however, should come within the following specifications: Light cars, capable of carrying two people and hauling two in trailer; water and radiator value up to 100 miles at average mean speed of 10 miles per hour; petrol capacity, 120 miles; cars well sprung fore and aft on long springs; pneumatic wheels for cars averaging 15 miles per hour; cushion or solid tires for cars averaging 10 to 12 miles per hour; power, 6 to 12 horsepower for light cars, 9 to 15 for heavy; light cars to average 15 miles and heavier 10 to 12, and pull 7½ hundredweight plus weight of trailer; front wheels, 36 to 42 inches diameter, with 4 to 6 inches face; rear wheels 26 to 32, with 5½ to 9 inches face; engine, two cylinders, simple, and as near fool proof as possible; firing accumulator and coil, also magnet, methods unchangeable; gear can not be too simple or strong; reverse on heavy cars, but not on light; speeds, two—top 12 to 15, bottom 3½ to 5; pedal clutch; pedal brake and lever brake, former on front wheels, latter on back; engine speed not over 1,000 per minute; lubricating as near automatic as practicable; lights, carbide, with lens fronts; oil tanks not less than 200 miles capacity; carburetter approved float type. Essentials: Light and strong, easy on track, as near fool proof as possible.

MODEL CARS.

SECOND SWISS EXHIBIT DEVELOPS DESIRABLE MOTORS.

Consul F. B. Keene, writing from Geneva, says that an exposition of cycles, automobiles, motor boats, and parts thereof was opened in that city by the President of the Swiss Confederation on April 28. The consul continues:

This second display of the prosperity of the new industry in Switzerland shows great progress. The first exhibition gave a strong impetus to the Swiss automobile industry. In the Canton of Geneva alone there are now 453 workmen employed in the automobile business; in 1900 there were only 33. Geneva is the center of the automobile movement in Switzerland. It is the seat of the Swiss Touring Club, the Swiss Automobile Club, and of other touring associations which have members all over the country. In Geneva 321 automobiles, 470 motor cycles of every description, and 18,000 bicycles belonging to residents are registered with the cantonal authorities.

STRONG AND UNIFORM MECHANICAL FEATURES.

Most of the machines exhibited were of the larger types; small machines (voiturettes) were few in number. I have heard it said that Swiss motors in general seem to be not yet quite light enough for use in less mountainous countries. As to their fine quality and endurance there seems to be no doubt. Many practical applications in wagons

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and delivery carts, omnibuses, and mail carriages were exhibited. In a general way it seems that the mechanical part of the automobile is in the course of being made more uniform; i. e., the "chassis" or framework, the wheels, the motors, and the brakes with the magnetic "allumage." The transmission of power continues to be much discussed, and for some time to come it will be made either by leather straps or by metallic chains.

One thing is certain, Switzerland wants good strong machines. It is to be regretted that the only American factory which was represented in Geneva has now no active agent here. A member of the Swiss Automobile Club and the old agent of that American company both told me that the American automobile in question did not meet the good, strong, reliable, and enduring requirements demanded for this country. The American article, he said, was too light and too wide, it got out of order very soon, was somewhat too expensive for a voiturette for two persons ($810.60), has a shape which did not please the European eye, and has no direction wheel, he said. Applications to the manufacturers to change the width of their cars, to lower their export price, or to deliver framework alone without carriage work were unsuccessful. When one thinks that, besides the strong type of 6-horsepower runabout described further, French voiturettes, two seats, are sold here from $463.20 up, it is no wonder that only one American machine of the above-described type has been sold in Geneva. A light (two seats) runabout, with a 6-horsepower motor, capable of running at 24 miles an hour on flat roads and ascending 15 per cent gradients, is sold here at $752.70, all important parts coming mostly from France and all tools and accessories included in the price. A six months' guaranty is given against defective parts; delivery three weeks after order.

CYCLES IN GOOD DEMAND.

Motor cycles were also represented, but none has so much success as the lightest type of all, the "motosacoche," made in Geneva. The manufacturers of this state they have received orders even from China and Australia. Two manufacturers of cycles made an excellent show of their products, which, like the Swiss autocars, are both good and enduring. The Swiss war department orders annually from 100 to 200 of their machines for use in the army cyclists' corps. Several other firms import cycle parts from Germany and England, and by putting them together sell these cycles with good profit. Out of the 100 exhibitors at Geneva this year there were 23 French firms, 2 Germans, 2 Italian, 2 Belgian, and 1 American.

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LABOR.

EUROPEAN PROBLEMS.

EFFECT OF GERMANY'S COMMERCIAL TREATIES.

FACTORIES HAVE DRAWN MANY LABORERS FROM THE FARMS.

Consul Ernest L. Harris, writing from Chemnitz on agricultural problems in Germany, reports that during the past year Germany has succeeded in bringing to a successful close a number of commercial treaties which have been negotiated with the ultimate aim of bringing some relief to the landed interests. These commercial or agricultural treaties, as some have been pleased to call them, will undoubtedly exercise a great influence upon German industries during the next few years, but whether it will be for the weal or the woe of the manufacturing interests throughout the country is at the present time a matter of mere conjecture.

At any rate, based even upon the hypothesis that these newly formed commercial treaties, which have been carried into effect against the protests of nearly every chamber of commerce in the Empire, should result in the realization of the most sanguine hopes of the Agrarian-Conservative party, one great problem will still remain to be solved, namely, the question of wages among farm hands and servants. Will the steps which have been taken to safeguard and promote the agricultural interests of the Empire by a higher tariff on foreign food stuffs, which is intended to encourage the production of a greater output of farm produce, together with newly introduced methods of intensive farming, stem the tide of migration from the country villages to the industrial cities?

Thus far in Germany's onward march as an industrial state the acute labor problems, as in England and elsewhere, have been confined almost exclusively to strikes and lockouts in connection with the textile, mining, electric, chemical, and machine manufacturing industries. The struggles which have attended the adjustment of wages in these great branches of industry have been watched with the keenest interest by the world at large. It is now generally conceded that troubles of the same nature are threatening to drift into the country districts, and unless something is done to mitigate the lot of that body of people who own no land themselves and are too poor to become renters, the same serious consequences will eventually seize upon the farming interests as have marked the history of labor troubles in the cities and small industrial towns during the past few years. It is upon the shoulders of the peasant boy and girl who are not to become heirs to a parental

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farmhouse and patch of land that the drudgery of the ordinary farm work usually falls. This being the case, no sentimental reasons have bound them to the country village, and the low wage rate has driven them to try their luck in the cities. That is the situation to-day.

CITIES DRAWING FROM THE FARMS.

Germany has been peculiarly fortunate in the trend which her industrial progress has taken during the past twenty-five years. In 1881 no less than 220,000 German emigrants sought new homes in the United States. The forging ahead which has characterized the remarkable development of all her industries in recent years, apart from the keen intelligence and mechanical skill brought to bear upon the situation, has been entirely due to the immense resources of labor which the country villages have contributed toward building up nearly every branch of manufacture. The tide of emigration was skillfully and successfully turned from America to the German cities. In 1890 Chemnitz had 180,000 inhabitants. The monthly census for March, 1906, puts the number at 245,936. This increase in fifteen years is due in a certain measure to natural causes, but the bulk has come from the neighboring villages in the Erzgebirge and from other industrial cities in Germany, which always have a floating population which drifts from place to place according to the price paid for labor. Chemnitz is the most important industrial city in Germany, and it is natural that a varied population from every part of the country should be attracted to this place by the manifold industries which have been established here during the past few years.

There are about 75,000 skilled workmen in Chemnitz. This and similar manufacturing cities have drawn a not to be underestimated industrial army from Austria-Hungary, especially Bohemia, while Prussian Poland has furnished a large laboring element to the industrial cities on the Rhine.

EFFECT OF MIGRATION FROM THE COUNTRY.

The time has now come, however, when the country districts can no longer spare a surplus population for the cities, if the recent policies formulated for the support of the agricultural interests are to be a success. Unless better wages are paid in the country the migration to the cities will continue, thus rendering abortive the economic policy already referred to. It is generally realized on the other hand, however, that this will necessarily increase the cost of farm produce, already rendered dear by the exclusion of foreign food stuffs, and any mitigation or betterment of the conditions of labor in the country districts must be done eventually at the expense of the city consumer, which can not fail to have a serious effect upon existing wage rates in the great factory centers all over the Empire. The introduction of a policy having as its ultimate aim the persuading of any part of the city population back to the country districts would be futile, for the reason that if skilled labor should ever become a drug on the market and a workman stood face to face with the stern necessity of bettering his condition or that of his family he would infinitely prefer to seek his fortune in some new country which would offer him a possible chance of employment in some factory at his trade, or, failing in this, the possibilities of establishing a home and making a living at farming would be incomparably greater than in Germany.

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WAGES OF FARM LABORERS.

In order to give a clear idea of the wages paid to farm laborers to-day the following analysis may be of assistance. The territory embraced by the German Empire is something over 210,000 square miles. The rate of wages in the country districts naturally will vary according to circumstances, dependent upon the nature of the crops raised, etc. For simplification I have thought that a wage rate grouped into five classes, arranged with reference to a certain number of square miles, with the percentage of wages paid in each class, graded and assigned to a specific area, would be the best means of showing the different rates of wages paid throughout the country at large. This classification is as follows:

Class.	Square miles.	Wage rate per annum.	Per cent.
Fifth	65,841	$71 to $99	31.13
Fourth	88,283	99 to 128	41.81
Third	51,274	128 to 157	24.43
Second	5,204	157 to 185	2.49
First	293	185 to 228	.14

It will be seen that the first class is scarcely to be considered, while the second class is of little more importance. Those who earn an annual wage rate of more than $157 are few indeed. The results of this investigation show that the majority of farm laborers earn an annual wage which ranges between $99 and $157, while a very large number must be placed in the lowest class, namely, $71 to $99. This makes a daily average for a farm laborer in class 4 only 23 to 52 cents. Generally speaking, the wages are higher in those parts of Germany where the farms are small and owned by a well-to-do peasantry than in those parts where large landed estates are in the hands of a few proprietors.

Looking at the situation from an economic standpoint, and judging from agicultural conditions in Germany, it would seem that the farming interests were suffering more from inability to compete than from any other cause. As a rule, cheap labor strengthens competition in manufacture, but this does not hold good when applied to the production of farm products, therefore the question of wages is the pivotal point upon which everything turns in the solution of German agrarian interests to-day.

FEMALE LABOR.

ITALIAN, POLISH, AND GALICIAN WOMEN IMPORTED INTO BADEN.

Consul H. W. Harris, of Mannheim, furnishes statistics as to the number of women employed in factories in the Grand Duchy of Baden.

Baden is about the size of Connecticut, and is generally classed as a manufacturing State. In 1905 the number of women employed in factories, tailor shops, and similar branches in the Grand Duchy was 66,294, as against 63,810 in 1904, or a trifle more than 31 per cent of the total number of employees in 2,793 concerns from which a computation was made. Of these female employees the cigar and textile industries took more than half. In clothing and trimming factories

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and tailor shops 3,157 women were found employed in 1905. In the cigar and metal working industries, including jewelry manufactories, the number of married women, widows, and divorced women was found in 1905 to be considerably larger than in other branches where women find employment.

GIRL WORKERS HARD TO SECURE.

Factory statistics show a marked increase in the number of married women who seek employment in factories, their present number being nearly one-half the total of adult women so employed. A corresponding decrease in the number of young girls in factories is also noted. Each year is said to increase the demand for this class of labor and a growing scarcity to have resulted. The case is cited of a firm engaged in the manufacture of bandages in a small town quite distant from any manufacturing center which made a careful canvass for working women over 21 years of age in three nearby villages and secured but one under an offer of $1.90 per week at the beginning with a guaranty of an early increase to $3.57 per week. This scarcity of female employees in factories has led to the importing of a large number of Italian women for the textile industry and considerable numbers of Polish women and Galicians in other branches, especially the rag sorting branches. The importation of this labor is justified on the ground of its being an industrial necessity in the present condition of manufacturing in this part of Germany.

EDUCATION FOR GIRLS.

TRAINING FOR WORKING CLASSES IN BELGIUM.

Consul James C. McNally, of Liege, writes of the various industrial organizations for teaching girls in Belgium and which are as extensive and as thorough as those formed for the education of boys. These schools, termed professional, exist in every Province of the Kingdom and are maintained by the Government.

The training schools number about 300 and are especially graded for pupils according to their merits and the bent of their talents.

Belgium claims for itself the credit of taking the iniative in the matter of domestic education, having founded the first school for this purpose in 1889. These domestic training organizations have a corps of professors and the work is practical. The term is about two years. The training includes the maintenance and cleanliness of houses and furnishings, washing and ironing, cutting, making, and repairing of clothing, cooking, and, in the rural districts, the care of poultry and the raising of garden truck. The theoretical teaching includes the study of hygiene, domestic economy, and the care of children, and nursing the sick.

The domestic education is for the use of the daughters of the working classes and aims to impart a knowledge of how to manage a household, order and economy being the principal elements. With the domestic teaching are added a common school education. Besides the ordinary housekeeping knowledge, some schools teach dressmaking, millinery, artificial flower making, embroidery, china painting, bookkeeping, typewriting, etc.

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MINERS' CONGRESS.

LESS THAN ONE-HALF THE MINERS BELONG TO UNIONS.

At the recent session of the International Miners' Congress in Europe the report of the credential committee was to the effect that there are 708,200 miners in Great Britain, of whom 480,000 were organized, and had elected 14 members of the House of Commons. In France there are about 200,000 miners, and 150,000 are organized; they had two members in the French Parliament. In Belgium there are 135,000 miners, 65,000 of whom are organized, and they had two members in the Belgian Parliament. In Germany there are 600,000 miners, of whom 112,000 belong to the German Miners' Federation and 70,000 belong to the German Christian Miners' Federation. Austria has 135,000 miners, of whom 40,000 were organized in unions. The United States has 550,000 miners, 365,000 of whom belong to unions. It was therefore claimed that out of something like two and one-fourth million miners 1,282,000 were organized in trade unions, and had sent 116 delegates to the Congress.

Resolutions were unanimously adopted demanding that, to prevent a recurrence of catastrophes such as that which recently occurred in France, there should be workingmen inspectors of mines, elected by the miners and paid by the State, possessing the right to visit the mines as often and whenever they chose, and with sufficient authority to insure that their recommendations shall be carried out. Mr. J. P. White, from the United States, said that workingmen inspectors could be elected in this country, but the workmen rarely possessed the necessary technical knowledge to pass the examination. The German delegates declared that in only about one-third of the mines of Germany were proper precautions taken to guard against accidents.

CONFLICT IN FRANCE.

MANY INDUSTRIES DEMORALIZED.

The labor conflict in France still continues. The workmen declare that they are determined to struggle until the employers capitulate, while the employers, apparently equally determined, declare they will not make any concessions. Some of the French industries are very much demoralized.

The labor agitations in recent years are said to have had an important effect in leading to a "concentration of industries." In 1896 there were 2,344,471 independent establishments in France; in 1901 the total number of such establishments was 2,245,356, a diminution in five years of nearly 100,000 establishments. The number now is said to be very much smaller. The small establishments are reported to have been the ones which have largely gone out of business. During the period of 1896 to 1901 no less than 102,355 small firms disappeared, while establishments employing from 21 to 100 workmen increased by 2,535, and the number of large firms, employing more than 100 workmen each, increased from 3,918 in 1896 to 4,623 in 1901.

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MISCELLANEOUS.

THE CEMENT INDUSTRY.

GERMAN AND BELGIAN MILLS COMBINE.

IMPORTS AND EXPORTS—OVERPRODUCTION AND PROFITS.

Consul-General Thackara, of Berlin, in reporting on the Portland cement industry in Germany, says that it is the most mysterious and difficult industrial branch for a foreigner to investigate and to gain any definite knowledge concerning. The cement factories are organized into more or less loosely established combinations or associations, which in some instances have taken the form of syndicates. All the statistics in each group are the carefully guarded property of each branch syndicate and are not published in any united or consecutive form.

Germany has in all 320 cement mills, in 117 of which Portland cement is manufactured. The production of the syndicated Portland cement factories in 1904 was 27,950,000 barrels, but figures for the entire German output are not obtainable. The lowest point in the history of the cement industry of Germany at which the aggregate sales of all the factories bore the lowest proportion to the total capacity of production was in 1902, when the sales were only 50 per cent of the whole production capacity. The percentage was but little higher at the close of 1905, but during the present year the cement business has somewhat improved, owing in a great measure to the effects of the mild winter upon building operations. Still it is a very much overdone industry, and although German cement ranks at the very top in respect to quality, home competition and the pressure of outside factories are so great as to keep the price down to a very close margin of profit and to render the position of the great manufacturers constantly difficult and embarrassing.

I am told that cement is sometimes sold here in Berlin at a profit of only 50 pfennigs (11.9 cents) per barrel to the manufacturer. The prices vary greatly, according to the district in which the product is sold. At the present time the best Portland cement is quoted in Berlin at marks 5.50 ($1.31) per barrel of 170 kilograms (375 pounds), including packing. During the past year the prices in this city averaged from 4.80 to 5 marks ($1.14 to $1.19) per barrel free at the building, including barrel. In the price of cement bags are usually valued by the manufacturers at 20 pfennigs (4.76 cents) each, and barrels at 25 pfennigs (5.95 cents), and are taken back at the same price, free of charge, if they are returned in good condition within six weeks after being used.

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IMPORTS AND EXPORTS.

Toward the close of 1905 the Imperial Railway Administration asked for bids on 5,000,000 kilograms (11,023,100 pounds) of Portland cement. The prices offered by the manufacturers ranged from marks 25.87 to marks 33.30 ($6.16 to $7.92½) per metric ton (2,204.6 pounds). The imports of cement into Germany, which include Roman, Portland, and hydraulic cement, the different varieties not being separated in the official customs statistics, were, in 1905, 148,008 metric tons, as compared with 60,164 tons in 1904 and 49,823 tons in 1903.

The principal countries of origin in 1905 were Belgium, which sent 65,363 tons; Austria-Hungary, 33,743 tons; Switzerland, 15,114 tons, and France, 11,864 tons. In 1905 Germany exported 617,891 tons of the three different kinds of cement; in 1904, 580,194 tons, and in 1903, 686,569 tons. The principal countries to which the cement was sent were Belgium, 43,807 tons; Holland, 103,795 tons; Brazil, 47,308 tons, and the United States, 86,043 tons. During the past year the exports to the United States show a gradual falling off as compared with former years. In 1904 they were 94,116 tons; in 1903, 221,661 tons; in 1902, 246,645 tons, and in 1901, 108,596 tons. Other countries to which German cement was exported in 1905 were Denmark, Finland, British South Africa, Portuguese East Africa, British Malacca, China, Dutch India, Chile, Mexico, France, Norway, Sweden, Russia, Spain, Dutch South West Africa, Cameroon, British India, Hongkong, Philippine Islands, Argentine Confederation, Uruguay, Venezuela, and Australia. The countries of destination of German cement are given in detail to indicate the number of far-off markets to which the German manufacturers resort to sell their products, to many of which they have direct communication in steamers flying their own flag.

The applications of cement in Germany are mostly those which are well known to our American builders. Whether or not American cement can be sold in Germany will depend upon the ability of our manufacturers, after paying freight and other charges, to meet the keen competition, both as to price and quality, which their products will meet with. Under the present provisional tariff agreement existing between the United States and Germany American cement can be imported into this country free of duty.

COMBINATION WITH FOREIGN PRODUCERS.

As to the combine between the German and Belgian cement manufacturers in the spring of 1905, the Rhenish-Westphalian Cement Syndicate, the South German Cement Sales Office at Heidelberg, and the Belgian Cement Syndicate, in order to enable them to carry on their Dutch trade under more satisfactory conditions, entered into an agreement to establish a sales office at Rotterdam through which the cement business in Holland of the three associations is to be transacted up to the year 1913. On the 27th of April, 1905, a meeting of representatives of the English and French cement industries was held for the purpose of discussing the possibility of making some arrangement by which the production of cement in their respective countries could be regulated and prices maintained. For a time the negotiations remained without result, but finally, on November 5 last, an agreement was made with the German and Belgian interested parties, by

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the terms of which the French and English cement trade in Holland was also regulated.

At various times during the past year endeavors were made to get the various German cement associations together, so as to form a general syndicate for the whole of Germany. Toward the end of October a loose arrangement was brought about among the associations to apportion the markets in the different German districts, to which, however, the South German, the Rhenish-Westphalian, and the Lower Elbe syndicates did not subscribe. Inasmuch as, after unending efforts, on the 30th of October, the latter-named associations entered into the arrangement, the whole of Germany is now covered with a network of agreements, which have to some extent strengthened the confidence of the manufacturers in the maintenance of fair prices.

Toward the end of November many complaints were heard from the cement dealers, as, in consequence of the agreement between the different German cement associations, the middlemen were excluded. The union of German dealers in building materials, which includes 700 firms, with an annual consumption of 1,300,000 tons of cement, planned the organization of a buying syndicate, and demanded from the cement manufacturers an extra rebate of from 6 to 10 per cent for its members. The syndicated factories refused to comply with the request of the dealers' union, so new conflicts appear to threaten the German cement industry. The union dealers are discussing the advisability of erecting their own cement factories, but up to the present no actual steps have been taken.

THE SITUATION IN ENGLAND.

The many inquiries made for cement to be used in rebuilding San Francisco have led Consul W. C. Hamm, at Hull, to give some interesting trade facts. He says:

About 4,000 tons of limestone are brought to Hull each week, and the production of cement is about 5,000 tons per week. The supply could be increased under pressure. The cost of the barrels is larger here than in America and adds quite materially to the cost of the cement. Cement in bags costs 25 cents extra per bag, but on the return of the empty bags most of this charge is refunded. Since the San Francisco earthquake the demand for cement has been exceptionally large, and it is only with difficulty that orders can now be executed, as supplies are running short. The demand for British cement for the Pacific Coast of the United States during the past five years has been light. In 1901 the shipments were 5,745 tons, in 1902 there was an advance to 7,044 tons, and in 1903 a total of 19,018 tons was reached, but the following year only 3,023 tons were shipped. Last year, however, there was an advance to 9,618 tons. The British consul at San Francisco states that the cement trade there has, during the recent years, been largely captured by Belgium and Germany.

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PRESERVATION OF WOOD.

NEW SULPHUR PROCESS ENTIRELY FILLS THE PORES.

Consul R. M. Bartleman, writing from Seville, says that the faculty of wood to withstand atmospheric pressure is so small, compared with its mechanical resistence, that a close study of new systems aiming at its preservation is of great interest industrially.

All the wood preservative methods now employed are defective in so far as they make use of solutions the evaporative nature of which makes their action upon the wood effectual only for a certain time. The new method in question, which has been patented in Germany, goes further and utilizes a fixed body which becomes solid upon being instilled into the pores of the wood. This substance is sulphur, the physical properties of which offer interesting advantages, being fusible at about 115°, a temperature which the wood can support without any perceptible change. The sulphur is applied in liquid form, and in hardening completely fills up all the interstices of the fibrous tissue.

Although sulphur oxidates easily if subjected to a high temperature at a medium temperature it remains impassive, resisting not only the influence of water but also that of acids, concentrated or diluted, and alkaline solutions, if cold. The reason why the utility of sulphur in the direction indicated had not been recognized ere now was on account of its small mechanical resistance, pure sulphur being very brittle and pulverous. But as wood possesses the quality of mechanical resistance of which sulphur is devoid, the compound of these two bodies may, under the proper conditions, easily acquire valuable industrial properties, as, for instance, the vulcanized caoutchouc, which the wood, impregnated with sulphur, resembles a good deal.

THE NEW METHOD.

To protect wood by means of sulphur the following must be observed, viz: Sulphur is fused in a befitting receptacle, making use of steam to avoid an excess of heat, which deteriorates the sulphur. Into this liquid, and at a temperature of about 140°, are steeped the boards which are to receive the treatment, care being taken to immerse them completely. The foam which gathers at first, called forth by the separation from the wood of the air and humidity it contains, disappears at the moment the wood thoroughly assimilates the temperature of the bath, which is then lowered to 110°. At this point the sulphur becomes hard and, while the air contracts itself, the sulphur penetrates into the fibrous tissues, propelled by atmospheric pressure. The boards are then slowly withdrawn from the bath, allowing a thin and even coat of sulphur to form and cover the wood, as any superfluous surcharge can be removed only with the greatest difficulties afterwards. This coat of sulphur has a vitreous appearance and forms a very tenacious crust, excluding all tendencies to chip or break.

The degree to which the wood is impregnated varies according to the nature of the wood, the temperature, and the duration of the bath.

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It may be gauged by the increase in weight of the boards, which amounts to from 30 to 35 per cent where the process is conducted in an open receptacle, and to 100 per cent if in a vacuum pan. Theoretically it may be said that a complete fullness of the pores of the wood would increase its weight by 200 per cent.

In numerous experiments poplar was the best wood to take the sulphur treatment. Oak and pine wood do not admit of the process quite so favorably, because their dry distillation begins at 140°, which can be proved simply by observing that while the wood is immersed in the bath bubbles are continually rising, marking the escape of volatile substances. Moreover the resin blackens the sulphur. The process in question has up to date been applied only to thin boards, but in view of the satisfactory results the hope is entertained of its becoming soon very popular.

TIN DEPOSITS OF ALASKA.

SOME GOOD LODES, BUT OPERATIONS ARE EXPENSIVE.

That the tin production of the United States will be increased through the development of new lodes in Alaska is evident by the report of Frank L. Hess, of the United States Geological Survey, on discoveries made there. The first lode tin in Alaska was found in 1903 on Cassiterite Creek, a tributary of Lost River, about 7 miles from the sea. It showed the tin ore in a large metamorphosed acidic dike. Several tunnels have been driven, revealing veins 3 to 10 feet thick. One of them showed viens of almost pure cassiterite and quartz about one-half inch thick, and other veins carrying cassiterite, chlorite, and some wolframite up to 1½ inches thick. In the vicinity of Cassiterite Creek three known tin-bearing veins of probably workable size occur in the limestone.

On Cape Mountain one company has made considerable discoveries of tin ore. Float cassiterite was reported from this vicinity, a fine piece weighing several pounds having been found 12 miles east of Cape Prince of Wales. A company operating on Cape Mountain is working on an ore body averaging between 2 and 3 feet in width. Among the operations one concern has a 10-stamp mill near the beach at Tin City.

At present wages in the York region are $5 per day and board, and good board can not be considered as worth less than $1.50 and $2.50 per day, making wages equivalent to $6.50 and $7.50 per day. It seems safe to figure, Mr. Hess remarks, that under present conditions nothing less than 2½ per cent ore can be worked with reasonable assurance of profit. Considerable prospecting is also being done for placer deposits. Those on Buck Creek have yielded to date about 91 tons of ore that would average probably 65 per cent of metallic tin. At least seven parties have been sent to Buck Creek by firms or private persons to examine and report on the tin gravels, these expenses being over $50,000. There is probably a length of 4 miles of tin-bearing gravels in the Buck Creek Valley.

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TREATING REFUSE ORES.

NEW PROCESS IN AUSTRALIA FOR HANDLING ZINC TAILINGS.

Commercial Agent G. W. Shotts writes from Sault Ste. Marie that the Canadian commercial agent at Melbourne, Australia, has reported to his government a new process of treating the refuse dumps of the lead-zinc-silver ores of that country, known as the "Potter process," which in substance is as follows:

Australian metallurgists now claim to have solved the problem of treating zinciferous tailings, of which many millions of tons have accumulated, hitherto practically worthless, but now representing a value of millions of pounds sterling. These ores, having been treated for the lead and silver, the residues (in the old dumps or tailings) carry 6 per cent lead, 20 per cent zinc, and 6.3 ounces of silver per ton. The general process of taking out the lead is one of concentration by means of jigs and various types of concentrators, such as "Frue Vanner," the "Wilfey Table," and other concentrators of this description. Until recently no satisfactory process had been brought forward for extracting the zinc from the ore, and this zinc-bearing residue has been put to one side for a number of years, until now there is probably 5,000,000 tons of material, carrying on an average about 20 per cent zinc and 6 per cent lead.

A company was formed a few months ago in Melbourne with a capital of $1,750,000 for the purpose of purchasing large quantities of tailings from the different mines and treating them by what is known as the "Potter process." This company has purchased and secured the option on about 4,000,000 tons of tailings, estimated to produce 269,000 tons of lead, 20,638,000 ounces of silver, and 738,000 tons of zinc. The preliminary plant has just been completed and is giving excellent results on a treatment of about 50 tons of tailings a day, but a plant is now being designed in Melbourne capable of treating 2,000 tons of material per day, and later it is intended to increase the daily capacity to 4,000 tons. Thus when the plant contemplated is running, the output of silver will reach the great total of over 8,000,000 ounces a year, equal to four times the present production of the cobalt district. In addition to this, the output of lead will be 87,000 tons, and zinc will reach the enormous total of 292,000 tons. This is fully equal to half the production of the whole world and must have a very important influence on the market price of this metal. These extraordinary results are obtained from working over the waste dumps and tailings, and redound to the credit of the Australian metallurgists.

INTERNATIONAL POSTAGE.

WORK OF THE CONGRESS WHICH MET IN ROME.

According to a dispatch from Rome the Postal Union Congress, which practically ended May 22, cheapened the postage on heavy letters. Not only has the unit of weight been raised from 15 to 20 grams, but the postage was reduced from 25 centimes to 15 for 20

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grams after the 1st of June. These changes will be even more favorable to Anglo-Saxon nonmetric countries than those using the decimal system, the British delegates having secured the adoption of 1 ounce. Unfortunately the congress could not be induced to lower the initial rate of letter postage. The British and Japanese proposals for a reduction to 20 centimes both failed. New Zealand's advocacy of universal penny postage was rather a demonstration than a business proposal. A little success was scored by picture post cards in internationalization. Permission was granted hitherto by only a few countries to write on the left-hand half of the address side. Still a more welcome boon to the public is the new reply coupon, which takes the form of a postal order to the bearer exchangeable in any country for a postage stamp of the value of 25 centimes.

COPPER.

INCREASED OUTPUT.

The value of the copper produced in the United States in 1905 was $137,498,727, as compared with $105,629,845 in 1904. The product of 1905 was much the largest ever recorded in the United States. Exports of copper to Germany, Holland, and other countries continue to increase. During the month of May 11,072,320 pounds were shipped to Germany, as compared with 6,381,340 pounds in April. Exports to Holland were 14,197,120 pounds in May, an increase of over 1,000,000 pounds as compared with the preceding month. France took 6,948,480 pounds and the United Kingdom 5,125,120 pounds, being a considerable increase over the previous month's shipments. The Michigan mines produced 20,000,000 pounds of refined copper in May, which sold for approximately $3,760,000. That was the largest output secured in any month since copper was first mined in the Lake Superior region. It indicates an annual production of 240,000,000 pounds, but an even larger product is expected as a result of preparations made by the mine owners to handle a greater output.

MEAT PRODUCTS.

UNITED STATES EXPORTS FOR TEN MONTHS.

The agitation over the meat-packing industry lends special interest to the annexed table showing the value of meats and meat products exported during the ten months ending with April last:

Articles.	Value.	Articles.	Value.
Lard	$51,578,103	Tallow	$8,822,797
Bacon	29,530,276	Sausage casings	2,225,759
Beef, fresh	19,977,948	Pork:	
Hams	16,620,582	Fresh	1,101,201
Oleo oil and oleomargarine	14,977,680	Canned	1,099,428
Salted pork	9,987,082	All other meats	5,498,187
Beef:			
Canned	5,705,308	Total	166,268,306
Salted	4,148,955		

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CONSULAR REPORTS.

The publications made up chiefly of reports from United States consular officers in foreign countries include the following:

COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.
REVIEW OF WORLD'S COMMERCE, being a summary of the annual reports contained in COMMERCIAL RELATIONS.
DAILY CONSULAR AND TRADE REPORTS, issued daily, except Sundays and legal holidays, for the convenience of the press, commercial and industrial organizations, manufacturers, etc.
MONTHLY CONSULAR AND TRADE REPORTS, containing miscellaneous reports from diplomatic and consular officers compiled from the daily.
SPECIAL CONSULAR REPORTS, containing series of reports from consular officers on particular subjects, made in pursuance to instructions from the Department.

The above consular reports were until July, 1903, issued by the Bureau of Foreign Commerce of the State Department; from that date until June, 1905, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the State Department was consolidated July 1, 1903; since July 1, 1905, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, the subjects of which the special reports treat, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of the reports on special subjects, in separate form, was begun in 1890. Those of the following titles are now available for distribution:

Vol. 8 (1890 and 1891).—Olive Culture in the Alpes Maritimes.
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VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of U. S. Mint and published by Secretary of the Treasury July 1, 1906.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U.S. gold.	Coins.
Argentina	Peso	$0.96,5	Gold—argentine ($4.82,4) and ½ argentine; silver—peso and divisions.
Austria-Hungary	Crown	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns; silver—1 and 5 crowns.
Belgium	Franc	.19,3	Gold—10 and 20 francs; silver—5 francs.
Brazil	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British N. A. (except Newfoundland).	Dollar	1.00	
British Honduras	...do	1.00	
Chile	Peso	.36,5	Gold—escudo ($1.825), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor ($9.647) and double condor; silver—peso.
Costa Rica	Colon	.46,5	Gold—2, 5, 10, and 20 colons ($9.30,7); silver—5, 10, 25, and 50 centimos.
Denmark	Crown	.26,8	Gold—10 and 20 crowns.
Ecuador	Sucre	.48,7	Gold—10 sucres ($4.8665); silver—sucre and divisions.
Egypt	Pound (100 piasters).	4.94,3	Gold—5, 10, 20, and 50, piasters; silver—1, 2, 5, 10, and 20 piasters.
Finland	Mark	.19,3	Gold—10 and 20 marks ($1.98 and $3.85,9).
France	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86,6½	Gold—sovereign (£) and half sovereign.
Greece	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	Gourde	.96,5	1, 2, 5, and 10 gourdes; silver—gourdes and divisions.
India	Pound sterling[a]	4.86,6½	Gold—sovereign (£); silver—rupee and divisions.
Italy	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen	.49,8	Gold—5, 10, and 20 yen; silver—10, 20, and 50 sen.
Liberia	Dollar	1.00	
Mexico	Peso[b]	.49,8	Gold—5 and 10 pesos; silver—dollar[c] or peso and divisions.
Netherlands	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Dollar	1.01,4	Gold—$2 ($2.02,7).
Norway	Crown	.26,8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2½, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86,6½	Gold—½ and 1 libra; silver—sol and divisions.
Philippine Islands	Peso	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble	.51,5	Gold—5, 7½, 10, and 15 rubles; silver—5, 10, 15, 20, 25, 50, and 100 copeks.
Spain	Peseta	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown	.26,8	Gold—10 and 20 crowns.
Switzerland	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster	.04,4	Gold—25, 50, 100, 250, and 500 piasters.
Uruguay	Peso	1.03,4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

COUNTRIES WITH FLUCTUATING CURRENCIES.[d]

Country and monetary unit.	Oct. 1, 1905.	Jan. 1, 1906.	Apr. 1, 1906.	July 1, 1906.	Country and monetary unit.	Oct. 1, 1905.	Jan. 1, 1906.	Apr. 1, 1906.	July 1, 1906.
Bolivia:	*Cts.*	*Cts.*	*Cts.*	*Cts.*	China—Continued.	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Silver boliviano	44.1	46.5	47.8	48.0	Hongkong dollar	50.2	51.6	51.8	
Central America:					Kiaochou	75.3	77	77.7	
Silver peso	44.1	46.5	46.5	48.0	Nankin tael	71.6	75.5	77.5	77.9
China:					Ningpo tael	73.3	75.3	73.9	
Amoy tael	72.4	76.3	78.3	78.8	Newchwang tael	67.9	71.5	73.4	75.7
Canton tael	72.2	76.0	78.1	78.5	Peking tael	70.6	74.3	76.3	76.8
Chefoo tael	69.2	72.9	74.9	75.3	Shanghai tael	66.1	69.6	71.5	71.9
Chinkiang tael	70.7	74.5	76.5	76.9	Swatow tael	66.9	70.4	72.3	72.7
Fuchau tael	66.9	70.5	72.4	72.8	Takau tael	72.8	76.7	78.8	79.2
Haikwan (customs) tael	73.6	77.6	79.7	80.1	Tientsin tael	70.1	73.9	75.9	76.3
Hankow tael	67.7	71.3	73.3	73.7	Persia:				
Hongkong tael	(e)	(e)	(e)	(e)	Silver kran	8.1	8.6	8.8	8.8

[a] The rupee, $0.3244½, 15 to the sovereign, constitutes the money of account.
[b] Seventy-five centigrams fine gold.
[c] Value in Mexico, $0.498.
[d] Coins of silver-standard countries are valued by pure silver content at average market price of silver for the three months preceding date of circular issued by U. S. Treasury Dept.
[e] The "British dollar" has the same legal value as the Mexican dollar in Hongkong and Labuan.

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DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY CONSULAR AND TRADE REPORTS

JULY, 1906

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MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C. JULY, 1906 No. 310

SOUTH AMERICA.

REPUBLIC OF COLOMBIA.

A LAND OF GREAT COMMERCIAL POSSIBILITIES.

GEOGRAPHICAL ADVANTAGES—RICH NATURAL RESOURCES—INVITING FIELD FOR AMERICAN ENTERPRISE.

Mr. John Barrett, minister to Bogota, in a comprehensive report seeks to awaken wider interest in the Republic of Colombia. He writes:

Not only should the merchants, manufacturers, exporters, and capitalists of the United States turn their eyes to Colombia, but all men who are students of international politics or who care to keep informed on remarkable achievement and possibilities beyond the confines of the United States, should watch Colombian progress. Then there is a particular reason, growing out of the recent Panama unpleasantness, why the Government and people of the United States should lend Colombia a helping and sympathetic hand in her efforts to develop a new era of prosperity.

Making a simple calculation for the future, Colombia will presently experience a material development like that of Mexico, which has astonished the world and attracted the investment of $600,000,000 gold of United States money. After having visited nearly all the Latin American Republics from Mexico to Argentina, the writer holds that Colombia, in proportion to area and population, is the richest of all in variety and extent of undeveloped resources and opportunities.

THE TIME TO ACT.

It especially behooves the trade, investment, and political interests of the United States to give heed to Colombia's potentialities without further delay, because the corresponding interests of Europe are

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already aroused to their appreciation and legitimate exploitation. Although Colombia is at our very doors, nearer to all the principal ports of the United States than any other South American country, we are almost in the attitude of listlessly watching the distant nations of Europe develop her internal resources and control her foreign commerce. This can be realized when only a few days ago a great English corporation completely bought out the principal American railway, steamboat, and development company in Colombia. And this followed the sale by another American company of one of the best railroad concessions in the country to a European corporation. Such transfers can not indicate lack of confidence in the future of Colombia, as Europeans study that phase of the situation even more carefully than Americans. They are rather due either to a desire to make immediate profits by selling out, or to lack of familiarity with the ultimate possibilities of the country.

COLOMBIA'S STRATEGIC LOCATION.

A few remarkable geographical facts about Colombia not generally known should serve to awaken special interest in her as one of our near and most important neighbors. Colombia's intimate proximity to the United States is brought out clearly by the following points:

1. The least distance between Colombia and the United States is only 950 miles.
2. From Cartagena to Tampa, Fla., is less distance by sea than from New York to St. Louis by land.
3. From Cartagena to New Orleans is only 1,400 miles, or four days easy steaming.
4. From Barranquilla, another Colombian port, to New York is almost a straight line due north, less than 1,900 miles, and five days easy steaming.
5. Colombia is nearer than Panama to the majority of Atlantic and Gulf ports of the United States.

Colombia's strategic position in commerce and international relations is demonstrated by the fact that she is, for practical purposes, the only South American country bordering on both the Atlantic and Pacific, and therefore having immediate and direct access by the great highway of the sea to the markets of the entire world. The completion of the Panama Canal will, moreover, strengthen this ideal position. She has nearly 500 miles reach of coast respectively on the Atlantic and Pacific, and the canal will benefit her even more than it will the United States or Panama.

AREA AND POPULATION.

Colombia's area entitles her to rank among the larger countries of the world. Comparisons in this case are interesting. To picture her extent it may be said that Colombia is larger than Germany, France, Holland, and Belgium combined. It is likewise larger than all the coast States of the United States from Maine to Florida united, with Ohio and West Virginia added.

As the population is not more than 4,000,000, with a capacity (500,000 square miles) to support 40,000,000, it can be seen that the Republic is in the very infancy of development. The majority of the

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inhabitants are hard working and industrious, and were it not for the many civil wars that have drained their lifeblood and exhausted their energies, they would be one of the richest peoples per capita in the world. It is the fervent prayer of all sincere friends of Colombia that President Reyes may be spared in health and life to succeed in his noble efforts to evolve permanent peace and consequent prosperity for his long-suffering land.

STEAMSHIP COMMUNICATION.

There are two principal ports on the Atlantic or Caribbean shore, namely, Barranquilla and Cartagena, which are connected with New York by regular steamship lines running frequently and with Berlin, Philadelphia, Baltimore, New Orleans, and Galveston by occasional steamers. Chief among the former are the Hamburg-American (German), which has absorbed the Atlas Line, and the Royal Mail (English). The former touches at Kingston, Jamaica, and Port Limon, Costa Rica, en route, and the latter at Colon (Panama) and Kingston. There is also a line of fast steamers belonging to the United Fruit Company running regularly and often between Santa Marta, near Barranquilla, and New York or New Orleans. There are, therefore, fair facilities for the exchange of trade and travel between Colombia and the United States, but these would be greatly improved if business demanded. Europe is even better off in steamship communication, except for the heavy handicap of distance and time, as there are large freight and passenger vessels plying regularly between these ports of Colombia and those of England, Germany, France, Spain, and Italy.

On the Pacific side the only port of importance is Buenaventura, which is connected with Panama by regular weekly steamers and smaller coasting vessels. It is not yet a large town, but it is destined to be a city of considerable size when the Panama Canal is opened and when the railroad now being constructed by Americans is completed to Bogota. It is the gateway to the marvelously rich State of Cauca, which, with an extent equal to that of California, is described by the best authorities as one of the "garden spots" of the world. Shipments and travel to Buenaventura from either San Francisco or New York go now via Panama.

Returning to the Atlantic coast, it is to be noted that the principal interior points, excepting part of these in the Cauca just mentioned, and some points now accessible through Lake Maracaibo, near Venezuela, are reached through Cartagena and Barranquilla, and thence by extensive river and overland routes. Colombia is greatly favored with navigable rivers. By means of the mighty Magdalena, flowing almost due north through the heart of Colombia from Ecuador to the Atlantic, and by its tributaries, over half her area has a natural outlet and inlet to and from the sea.

REMARKABLE CLIMATE—UNIQUE CAPITAL.

Perhaps the chief marvel of Colombia is her variety of climate. The average foreigner pictures Colombia as hot and sultry. He looks on the map, and this view is confirmed. But what a mistake. Although all of Colombia is geographically in the Tropics, and its southernmost point is only a few miles from the equator, it has sections as large as

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bananas, cocoanuts, chocolate, ivory nuts, quina, platinum, dyewoods, cedar and mahogany, orchids, etc. The value of these exports to the United States in 1905 approximated $6,300,000 gold. This amount will be tripled when Colombia is started on an era of permanent peace, and productiveness is increased.

Colombian imports from the United States include flour, kerosene oil, agricultural implements, mining and sugar-refining machinery, railroad and steamboat equipment, novelties of all kinds, shoes, matches, arms and sporting goods, hardware, dyes and chemicals, toilet articles, some lines of cotton cloth and clothing, paper and printing supplies, etc.; but, excepting the first of these items, the greatest quantities are supplied by Europe. Imports from the United States in 1905 amounted in value to only $3,700,000, although the grand total of foreign imports amounted to approximately $12,000,000 to $15,000,000.

Concerning conditions working against foreign imports, attention should first be called to the excessively high fees charged by Colombian consulates for certifying to invoices, and, second, to the frequent changes that are made in the Colombian tariff schedules. The sooner the Government lowers the former to reasonable figures and makes the latter more stable, the sooner will it foster foreign trade and increase its revenues. Chambers of commerce of the United States, England, and France have complained to their respective foreign offices, and they in turn have instructed their different diplomatic officers at Bogota to make earnest representations on these points, but the handicap still exists. It is to be hoped that President Reyes, with characteristic good judgment, will soon inaugurate the new and necessary conditions.

PACKING, TRANSPORTATION, ETC.

While discussing commercial embargoes American exporters are reminded that the necessity of strong, careful, and special packing is more apparent in Colombia than in almost any other country. Two peculiar features of the situation must always be borne in mind: First, the tropical atmosphere at all the ports of entry and in the lower sections; second, the muleback transportation overland from the rivers to the cities and towns of the higher interiors. The dampness and heat of the former will ruin delicate and other shipments not incased in tin or other suitable air and water tight covering, while the limited carrying facilities of the latter require that packages shall not exceed 125 pounds in weight. These rules apply to the great average run of imports. Of course there is special provision for heavy machinery, but its transportation is always expensive, dangerous, and slow. The completion of the new railroads, now being laid down, should solve the problem of weight, but it can not provide against the dampness and heat.

In contrast the true American who loves sportsmanship and hunting for exercise and rest, or the professional explorer and hunter who seeks new fields and prey, will find in Colombia unrivaled opportunities for pleasure or adventure. In the tropical and semitropical forests roam the jaguar, puma, bear, armadillo, tapir, sloth, deer, opossum, and cavy. In the trees can be seen monkeys, and a multitude of bird species, like condors, parrots, cockatoos, turpials, and humming birds. In the rivers are legions of alligators, while along the coast are turtles in abundance. Cranes and storks fly over the damp lowlands, and boa

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constrictors crawl through their rank vegetation. In the high and colder country are deer, foxes, mountain lions, and tigers, and along the lagoons and among the fields ducks, snipe, and pigeons.

Again, the geologist, mineralogist, botanist, forester, and average scientist can always find abundant lines of study and investigation, respectively, in the geological formation, mineral deposits, flora and tree growth, and general physical characteristics of Colombia. In this connection it must be remembered that the great Humboldt found this part of South America the most interesting of his travels. The National Museum in the capital contains rare specimens of fauna, flora, and mineral and geological development that interest both the layman and specialist.

FEELING TOWARD AMERICANS.

The question is continually being asked: What is the attitude of the Colombian Government and people toward Americans and American interests on account of the Panama affair? This pertinent inquiry can be best answered in the personal equation. The writer can truthfully say that he has ever been treated with a generous kindness and sincere hospitality that have made a deep impression and increased a respect for Latin Americans in general and Colombians in particular. The United States minister has been extended invitations, official and personal, and the United States legation in turn has been continually frequented by leading men of all parties, as if nothing had ever happened to mar the entente cordiale of the two countries.

In the granting of concessions and in the hearing of claims the Government has treated Americans with as much consideration as Europeans. During my stay here and up to this writing there has not been one complaint lodged by Americans in this legation of unkind treatment by Colombians due to any political or anti-American feeling. In personal travels in various parts of the country, officials and peons alike have everywhere accorded polite and even gracious attention. To let it be known that the writer was United States minister has always led to extra courtesies rather than to any lack of them.

Strong feeling against the United States still exists, but the passing of years, and generous, fair treatment of Colombia and Colombians by the United States and its citizens in international relations and friendly social and commercial intercourse can effect its gradual disappearance. Such feeling does not take the attitude of personal enmity toward Americans. The Colombians, high and low, are too polite and sensible for that. It is a feeling in the minds and hearts, based on the high political and patriotic grounds, which, however, with commendable philosophy, recognizes the inevitable and now turns to the future to bring blessings that will counterbalance the losses and sorrows of the past. The very courage and nobility of this attitude of Colombia is one of the chief reasons why one can predict for her a magnificent future.

LAND OF PEACE AND PROSPERITY.

Great credit is due Gen. Rafael Reyes, President of this Republic, for his untiring efforts to restore the prosperity of his country to the position it occupied before the last civil war and the loss of Panama.

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If he succeeds he will deserve a place in history like that of President Diaz in Mexico. He has so far effectually stopped revolutions, and if his life and health are spared Colombia would seem to be assured of peace, at least during his administration.

A word of credit should also be given the press of the country for its efforts to promote the welfare of the nation. Such newspapers as the Correo Nacional and Nuevo Tiempo, in Bogota; El Porvenir, in Cartagena; El Conservador and Rigoletto, in Barranquilla; La Patria, in Medellin; and Correo del Cauca, in Cali, are enterprising, public spirited, and well edited. They are especially to be commended for their fair treatment of the United States and of Americans residing in Colombia.

Those desiring further detailed information about Colombia can consult the International Bureau of the American Republics, in Washington, and the excellent reports of the United States consul-general at Bogota and consuls at Cartagena and Barranquilla, published in the Commercial Relations of the United States and the Daily Consular and Trade Reports, issued by the Bureau of Manufactures of the Department of Commerce and Labor. Any questions addressed to me, care of the Department of State, Washington, will also be carefully and promptly answered.

GENERAL IMPORTS.

UNITED STATES MAKES GOOD SHOWING AT BARRANQUILLA.

Consul P. P. Demers supplies the following statistics on imports through Barranquilla for the calendar years 1902–1905. The data sent is unique in character, being compiled from miscellaneous information gathered by him personally in the custom-house records:

There are no statistics of any kind officially published in Colombia, and none regularly classified are even to be found in the custom-house. Another difficulty lies in the fact that the weight of the article imported is looked upon as of more importance than the invoice value thereof. In fact, consular invoices are only footed up at the close of the year and do not appear jointly with each separate import. This system can not help being misleading. Thus we see that the imports for 1905, although representing a greater volume than those for 1904, still show an invoice value of nearly $2,000,000 less. This, however, is explained by a large increase in 1905 in the importation of provisions and steel and iron manufactures, and a decrease in the importation of cotton, woolen, and leather goods, drinks, and a few other things, whose value per kilogram is considerably higher than on the former articles.

The increase of provisions, especially flour, lard, and canned goods, seems a natural one, but that of steel and iron manufactures was due to the building of new railroads throughout the country and a greater development of her mining and other industries, under the auspices of the new government and its work of national reconstruction, which fairly promises an era of peace and progress for Colombia. The substantial decrease in the importation of cotton, woolen and leather goods, drinks, etc., is due to an unusual importation of these same articles in 1904, in the expectation, later realized, of a great increase in the custom duties of the country, which had to come in order to

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relieve the financial situation of the new government. The duties were raised at an average of 16 per cent ad valorem, as my figures for 1904 and 1905 will show, in 1904 the duties averaging 40 per cent ad valorem and in 1905, 56 per cent.

AMERICA FIRST, GERMANY SECOND.

An interesting point to note is the percentage of imports from the United States, which, curious enough, went up to 40.79 per cent in 1903. But this high percentage is easily explained by the class and bulk of goods imported therefrom, such as flour and petroleum, which need no canvassing and could not well be imported from other countries. Right here, I can say with certainty that this percentage would be increased surprisingly if the American exporters gave the Colombian market the painstaking care and nursing that the Germans and English do. Another interesting point to note is the fast-growing percentage of German imports. In fact, they have dislodged the British from the second place.

Thus we see that in 1901 the percentage of British imports was 27.55 per cent, that from Germany 18.85 per cent; and in 1905 their positions are almost exactly reversed.

One circumstance which would undoubtedly alter the true status of European imports into Colombia as regards percentage is the fact that imports here are recorded as from the port of shipment instead as from the country of origin. To give an illustration, a large quantity of foreign butter is consumed here bearing trade-marks from Holland, Denmark, and Switzerland, although no imports are recorded from these countries, being probably classified with imports from Hamburg.

Importation through the port of Barranquilla during the calendar years 1901–1905, and classifications thereof, in kilos of 2.20 pounds, were as follows:

Articles.	1902.	1903.	1904.	1905.
Provisions and condiments	10,433,713	10,871,026	15,331,142	19,551,550
Cotton, manufactures of	4,737,940	2,942,021	4,419,294	2,566,246
Material of construction	2,182,600	3,490,361	4,767,554	4,079,478
Iron and steel manufactures	1,581,895	2,222,994	4,325,444	7,387,246
Wine and beer	1,331,922	2,191,193	2,973,278	1,616,526
Explosives and inflammables	1,433,674	859,868	1,683,838	1,396,013
Cloth and thread	522,941	378,128	501,077	250,848
Lumber and furniture	562,040	282,723	783 410	1,105,899
Paper and pasteboard	343,787	373,679	718,756	726,600
Lead and tin	227,756	65,048	329,710	110,600
Drugs and medicine	222,927	307,256	448,149	504,910
Lighting supplies	185,133	134,285	389,646	466,547
Hemp and flax manufactures	117,035	79,782	132,017	221,690
Liquids (not drinks)	273,480	203,372	289,884	260,329
Wool manufactures	261,570	297,519	509,918	376,467
Crystal and glass	224,357	267,110	543,724	420,892
Crockery	244,984	223,461	370,381	209,283
Reed and sisal manufactures	126,918	108,564	204,424	188,049
Copper and bronze manufactures	30,269	38,342	117,188	82,400
Leather manufactures	42,584	67,857	152,803	79,286
Gold and silver manufactures	28,499	37,576	34,862	28,683
Bones manufactures	14,927	12,244	41,471	20,829
Perfumery	13,510	33,240	72,546	129,208
Silk manufactures	5,993	6,403	35,053	32,195
Rubber manufactures	4,403	4,072	13,055	13,218
Miscellaneous	1,891,839	1,155,017	2,440,859	3,030,612
Total in kilos	27,046,696	26,653,141	41,879,488	44,854,604
Invoice values	$5,568,539	$5,120,462	$9,165,868	$7,280,879
Duties paid	$1,800,566	$1,434,864	$3,671,754	$4,104,179

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The relative participation of the several countries named is shown in the annexed table:

Countries.	Per cent.	Per cent.	Per cent.	Per cent.
United States	32.40	40.79	34.70	38.19
Great Britain	20.40	18.58	18.00	17.43
Germany	18.40	27.11	27.30	26.18
France	2.30	3.66	4.80	4.02
Spain	3.20	4.20	5.10	2.53
Belgium	1.40	2.47	1.90	.....
Italy	1.70	1.20	1.50	1.19
Other countries	20.20	1.99	6.70	10.46

DIVERSITY OF IMPORTS.

The most important articles imported through this port are the following, stated according to their importance:

United States: Flour, petroleum, refined sugar, railroad and river steamer materials, canned goods, cotton goods, fencing wire, nails, machineries, lard, lumber, matches, and beer.
Great Britain: Cotton goods, iron (rough and manufactured), railroad materials, beer, hemp goods, mining materials, fencing wire, and roman cement.
Germany: Rice, refined sugar, cotton goods, beer, material for the construction of railroads and river steamers, kitchen utensils, paper, prepared lumber, and woolen goods.
France: Wine, brandy, drugs and medicine, canned goods, olive oil, silk goods, and perfumeries.
Spain: Wines.
Belgium: Railroad material, kitchen utensils, and roman cement.
Italy: Wine, matches, and paper.
Cuba: Cigarettes and tobacco.
Curaçao: Marine salt.

Articles which could be imported from the United States in greater volume, with proper efforts and canvassing, are cotton goods, material for the construction of railroads and river steamers, beer, roman cement, shoes, umbrellas, butter, cheese, glass wares, rice, refined sugar, drugs and medicine, manufactures of iron and steel, paper, windmills, plumbing articles, furniture (household and office), typewriters and hats (straw, felt, and silk).

ALCOHOL FROM COFFEE.

FLESH AROUND BEAN BECOMES VALUABLE.

Consul E. H. Plumacher, of Maracaibo, adds another chapter to the utilization of waste products. He writes as follows concerning a valuable new method for securing a native illuminant and power producer in the Tropics:

In a letter written by Don Enrique Sanchez, of Bucaramanga, Republic of Colombia, to the newpaper El Mercurio de Bogota, I see the following interesting information: "Don Enrique Sanchez states that after many scientific laboratory trials it has been proven that from the bulb of the coffee bean a good quality and large quantity of alcohol can be extracted. Up to date the bulb has been useless. It is well known to us here in the coffee-growing districts that of the coffee pod only the coffee bean has been of value, the flesh of the pod being a waste product. If it is true that from the bulb a good and sufficient

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quantity of alcohol can be extracted by distillation it is of the greatest benefit to all coffee-producing countries, as the alcohol will be used for illumination and for any other purpose. Most of our interior towns and houses are illuminated by petroleum, which has to be brought from the United States in boxes and shipped on muleback over high mountains and bad roads to the interior at a great expense. The import of petroleum to the coffee-growing countries will suffer greatly and also the revenue of the fiscus, as a heavy import duty is collected, especially in Venezuela."

REPUBLIC OF BRAZIL.

DEVELOPMENT BASED ON TWO CROPS.

ECONOMIC AND FINANCIAL CONDITIONS—VALUE OF COFFEE CROP—IMPORTANCE OF DIVERSIFIED PRODUCTS.

Consul-General George E. Anderson, of Rio de Janeiro, furnishes an interesting report on commercial and financial conditions in Brazil. In connection with the value of the coffee crop, which is nearly one-half of the entire annual exports of the Republic, and the bulk of which is purchased by the United States, the consul-general suggests that encouragement for the cultivation of coffee in Porto Rico and Hawaii and its sale in this market would seriously affect the commerce of Brazil. The fact that Brazil purchases from Europe the bulk of manufactured products imported into that country has special significance in this relation. The consul-general's report follows:

The discussion of the financial and economic situation of the Republic of Brazil, which has attended the consideration of the scheme to give to its coffee crop a fictitious value by action of the Brazilian Government through a commission which is to regulate the price to be received for the crop by purchases and a general attempt to regulate the supply furnished the world, has brought out the fact that while the development of the export trade of the country has been reasonably satisfactory and the record for the past year has been exceptionally good it by no means follows that the Republic is in an extraordinarily good position economically. The chief fact to be noted in a discussion of the export trade of Brazil is that the vast bulk of its trade is confined to few commodities—more than three-fourths of it to two commodities—and if anything should happen to either one of these two crops or indeed to any one of the several principal crops, the country would be placed in a very undesirable position. During the past five years there has been a slight change for the better in this respect, but the change is so small that its only importance is in the fact that it indicates a tendency which may later develop into a very marked and satisfactory movement of Brazilian industrial, agricultural, and commercial life.

THE EXPORT TRADE.

For a "new" country the development of Brazil's export trade has not been rapid, but on the whole it seems to have been reasonably satisfactory. The figures for the export trade of 1905 have been given

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out and the situation can best be understood by an examination of the following table, covering the exports for 1904 and 1905, the record for last year being the largest in the history of the country, the total exceeding the total of 1904 by 13.19 per cent. The exports for 1904 and 1905 were:

	Quantity.		Value.	
	1904.	1905.	1904.	1905.
	Pounds.	*Pounds.*		
Cotton	20,178,024	54,979,836	$4,132,535	$5,788,570
Monazite sand	10,692,860	9,762,040	544,125	500,180
Sugar	10,694,660	83,042,322	467,140	2,029,770
Castor seed	15,859,555	5,822,905	124,935	120,385
Rubber:				
Mangabeira	1,881,457	1,401,639	768,655	723,755
Maniçaba	4,875,369	5,900,877	2,350,610	4,172,910
Seringa	63,342,853	70,561,227	52,977,700	67,182,160
Cocoa	50,962,061	46,398,193	5,477,675	5,197,675
Coffee (bags)	10,024,536	10,820,661	99,787,815	107,102,575
Cotton seed	58,521,183	82,486,219	445,220	542,290
Para nuts (bushels)	259,224	555,032	536,555	1,161,030
Carnauba wax	4,390,201	4,172,865	1,021,135	1,039,090
Horns	2,402,943	2,422,719	123,045	155,345
Hides:				
Wet and salted	47,904,139	42,046,923	4,433,490	3,943,405
Dry	23,795,679	17,357,938	3,888,475	2,998,370
Horsehair	1,206,807	937,217	213,520	172,970
Extract of meat	612,200	184,432	119,885	45,905
Bran	64,478,614	58,149,872	448,470	838,300
Cassava	8,756,167	11,607,521	225,120	389,295
Medicinal herbs and roots	1,624,042	397,905	137,685	31,420
Fruits			241,270	341,250
Tobacco	52,721,361	44,859,227	4,192,580	4,126,030
Yerba maté	97,167,512	89,882,436	4,854,685	6,182,750
Ipecacuanha	41,146	47,724	43,995	76,320
Wool	2,177,309	557,018	260,590	80,110
Lumber			368,395	219,415
Manganese, in tons	208,260	224,377	1,533,995	1,664,135
Scrap metal			93,995	148,220
Gold bar			2,091,545	2,100,640
Precious stones			329,790	356,380
Skins	7,163,284	4,517,026	3,699,315	2,316,145
Piassava	3,233,599	2,833,274	218,210	189,375
Sundries			1,108,245	1,224,850
Total			197,150,680	223,161,260

Taking the figures for 1905 in comparison with those of the previous four years it is seen that last year's record, in spite of the fact that there was comparatively small increase in the exports of coffee over the previous years, surpasses that for any year, including that of 1901, the year of the immense coffee crop, and this may generally be held to be the most encouraging feature of the export returns.

During the last five years staple products have constituted the vast bulk of Brazilian exports and upon them it has based its fiscal system for the time being, and with them it has established its credit in foreign money markets. These seven products are coffee, rubber, cotton, sugar, tobacco, hides, and cocoa. Of the seven all but cotton are products of which Brazil uses comparatively little in a manufactured form from abroad. In cotton Brazil exports about $5,000,000 of the raw product and imports between $16,000,000 and $17,000,000 of manufactured cottons.

COFFEE AND SUGAR CROPS.

Last year the record of coffee shipments was scarcely above the average for the previous four years, while the other staples, except sugar and tobacco, in which conditions were exceptional, show a tend-

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ency to increase. While coffee remains about stationary on an average, exports in general show an increase of about 10 per cent. As compared with 1904, coffee in 1905 showed an increase of 7.33 per cent, rubber 26.81 per cent, cotton 40.01 per cent, and sugar 334.23 per cent, the immense increase indicating that this staple is likely to not only attain its old-time record, but that Brazil may become the great sugar-producing nation nature has enabled it to become. The actual amount of sugar shipped is not great, but it is great enough to indicate the drift of things and to demonstrate what may be done in the near future. This general tendency to diversify products is probably the most important feature of the trade situation of Brazil from a Brazilian standpoint. The need of it is certainly very great.

NECESSITY FOR DIVERSIFIED CROPS.

It is to be noted, however, that in spite of the general tendency to diversify the country's exports there has been little or no increase, and in some cases positive serious losses, in those exports like skins, wool, extract of meat, and lumber, which one might naturally expect to become a great volume of trade from Brazil. The increases shown have been in articles of comparatively little importance to the world at large.

It may be added that Brazilian export trade at the present time exists almost altogether in commodities which the world is demanding and which Brazil has been able to furnish by reason of its peculiar natural advantages and resources, rather than by reason of any activity or enterprise on the part of the people.

The natural inference is that if other countries find it necessary or advantageous to do so, and can develop the production of either one of these two great staples of Brazilian export trade, the effect upon Brazil would be very disastrous unless there can be more diversification of Brazilian products. For instance, the development in Porto Rico or Hawaii, or both, of a large production of coffee which was favored in the markets of the United States by a protective tariff or otherwise over Brazilian coffees would certainly have a very marked influence upon Brazil's economic position. Nor could there be any unfavorable result upon the export trade of the United States in such a course of things, since Brazil at the present time is purchasing practically all of its imports from European nations and shows no tendency to do otherwise. As matters now are, a tariff war between Brazil and any great coffee-consuming nation would cripple Brazil greatly. The diversification of its crops is one of the first needs commercial Brazil now has.

Withal its present export trade is in far better shape than it ever has been, and so long as present conditions continue the improvement from year to year promises to be very satisfactory.

COFFEE MANIPULATION.

RAILROADS AGREE TO REGULATE SHIPMENTS.

A new and unusual method of withholding stocks from the market to maintain prices has developed as a result of the railway interests of the State of São Paulo in taking part in the struggle. Last week a meeting of the presidents of the railroads of that State interested in

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the business of transporting coffee from the fazendas to the seacoast was held in the State house, and as a result of its deliberations the railroads agreed among themselves to so regulate their traffic that the monthly entries in Santos shall not exceed 1,000,000 bags. In other words, the railroads have agreed to force the greater or less holding of the coffee crops of the producers no matter what the producers may desire in the premises. By thus choking the arteries of transportation they expect to regulate the prices paid for the product in consuming markets no matter what stocks of coffee may be piled up in the fazendas.

Whether such a plan will be successful or not remains to be seen, but some of the smaller planters are already complaining that the large planters with their superior influence are likely to be able to market their products when they wish to do so, while the smaller planter will be forced to wait the pleasure of the railroads. The agreement is also interesting from a railroad transportation standpoint and certainly can not be taken otherwise than as a violation of the "common-carrier" principle, which is the dominating idea of railway service in most countries. Nor does it seem to occur to the managers of the São Paulo scheme that the curtailing of the shipments from São Paulo will merely offer all the more inducements for the shipments of coffee from other ports, giving the latter the advantage over the producers served by the São Paulo railways.

In spite of the schemes to give the consuming coffee markets more or less feeling that the coffee supply is limited, crop indications are that the year's crop will be large. Reports from Santos indicate a fine condition of the bean although receipts up to the beginning of the present week at São Paulo did not exceed 500,000 bags, and predictions are unsafe. The weather has been fine for curing with the exception of a short period. The drying process has not been taking more than from a half to two-thirds of the time usually required.

It seems to be generally agreed that the scheme for the valorization of coffee proposed by the three coffee-producing States will not be formally presented to the Brazilian Congress until after the new government comes into power on November 15. Its promoters freely state that the present Executive of the Republic would veto the measure if it were passed, and the opponents of the proposition would so delay it that action could not be had before that time any way. It is safe to say, therefore, that nothing will be realized from this scheme for the crop of coffee now coming in, except where planters are able to hold their crops for future disposition.

BUILDING BOOM.

PORTLAND CEMENT OPENING CREATED.

A great building boom is now in progress in Rio de Janeiro. Municipal improvements on a most lavish scale are now in progress, and with it is going a general construction movement of a like never before seen in this part of the world and indeed exceptional anywhere. This building movement in Rio de Janeiro is likely to be followed by similar movements in a number of Brazilian cities. At São Paulo, near Santos, great water-power works are in course of construction and improvement, the plans of the company having control of these works cover-

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ing the development of water power many miles back in the interior. It may be added that the style of building popular in Brazil involves the use of considerable cement, and the very large amount of street paving now in progress in Rio de Janeiro is constructed upon a foundation of unusual depth, composed of concrete in which there are three parts of sand, six parts of crushed stone, and one of first-class cement. The Brazilian engineers are running to cement construction in many lines—roads, bridges, water tanks, tunnels, steps up the steep hills of Brazilian cities—in fact, the uses of cement are very general.

RAPID INCREASE OF IMPORTS.

There was imported in 1903 into Brazil 63,771 tons of Portland cement of all kinds, valued by the customs authorities at $887,803; in 1904 the importations were 94,056 tons, valued at $1,161,232. The figures for the imports of 1905 have not yet been published by the Brazilian customs department, but reliable authorities place the imports at about twice those for 1904, while at the present time the rate of imports is still greater. Of this amount, based upon the 1904 returns, Germany is selling about 45 per cent, Belgium about 32 per cent, France about 9 per cent, and Great Britain about 10 per cent. Of the amount shipped into Brazil in 1904, Rio de Janeiro took about 45 per cent, Santos (for its dock works) about 22 per cent, and the rest was divided among the Brazilian cities in about the proportion of their population. In the future the imports are likely to center in unusual proportion in Rio de Janeiro, both on account of the large works now in the course of construction and on account of the new port works now planned, for which a foreign governmental loan already has been raised.

It will not be easy for American cement manufacturers to get into this field. The European brands now on the market here have fought for their position. The largest dealers in cement here frankly say that they are not disposed to take up with any new brands of cement unless there is especially strong inducement for them to do so. They have spent considerable sums of money in advertising and in otherwise pushing the sale of the brands they handle and naturally only such new business would attract them as would indemnify them for any losses in this line. New brands, to be put on the market successfully for extensive works, would need analysis and approval by some authority not only competent to judge of their merit, but also possessing the confidence of cement users in Brazil. On the other hand, that such a market offers permanent and successful trade when once it is obtained will readily be appreciated by American manufacturers.

Cement is now being sold to consumers in Rio Janeiro at from 8 to 15 milreis a barrel, which at present exchange is from $2.40 to $4.50 American gold per barrel. The ordinary good grades are sold from $3 to $3.50 per barrel. This includes the package, which the companies do not repurchase. I should advise American firms wishing to enter the Brazilian field to correspond with certain firms [list of which can be had from Bureau of Manufactures].

The general building situation in Rio Janeiro and other cities along the lower South American coast is such as to justify, in my opinion, the presence of a direct representative of cement and other building interests. He should be able to speak Spanish and Portuguese, and should

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be prepared to hunt for business for the future rather than to expect large and profitable returns from present business.

RUBBER OUTPUT.

SHIPMENTS OF MANGABEIRA VARIETY INCREASING.

Consul-General Anderson also writes that while shipments of mangabeira rubber last year amounted to only 1,401,639 pounds, as compared with 1,881,457 pounds the year before, the shipments from the port of Rio de Janeiro are on the increase, and it appears, therefore, that the business of gathering rubber from this variety of the rubber tree in other portions of the country than the Amazon Valley is on the increase.

Rubber produced from this tree is secured from the plant in the same manner as with the seringa—i. e., the sap is taken through a cutting in the bark and later is dried and smoked into a gum over a fire. The advantage possessed by the mangabeira over the seringa product, from a commercial standpoint, is in the fact that the mangabeira tree is more easily reached, it is not necessary to make so great a sacrifice of life and health to secure its sap, and it grows in more temperate portions of the country. Most of the mangabeira now being shipped comes from the States of Minas Geraes, Matto Grosso, Bahia, and Goyaz, with some from Pernambuco and Piauhy. There are three grades of it, the first being known as "good," the second as "poor," and the third as "refuse." It is rather peculiar that so much of the product should come out of the interior by way of Rio de Janeiro instead of following the water routes north and thence to the seaboard, but the indications are that the business will soon be so developed in volume that the permanence of the trade by this route will be assured.

The terrible cost in life and health of the seringa-rubber trade in the Amazon country is leading governmental and other agencies interested in the business to devise some means of reducing it, and the movement may take the form of a development of the mangabeira trade. Of the 65,557 kilos of mangabeira shipped out of Rio de Janeiro in the nine months of the current season, Germany has taken 43,727 kilos, the United States 15,768 kilos, France 5,948 kilos, and England 114 kilos. Of the total production of the country, however, the United States is taking about 36 per cent.

AMERICAN WHISKY IN SOUTH AMERICA.

The feeble efforts which manufacturers of American whisky are making to introduce their product abroad are not likely to be very successful in most South American ports.

This certainly is the case with Brazil. Comparatively little whisky of any sort is consumed in Brazil, what there is consumed being used almost altogether by British and American residents in the country. English colonials the world over take to "whisky and soda," and they carry with this habit a preference for Scotch and Irish, notably Scotch, whiskies. This preference apparently can not be overcome by those who attempt to introduce other products. There is really no great

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trade in whisky in Brazil, however, for the imports during 1905 were not even great enough to secure separate enumeration in the customs returns. There was imported in 1904 about $395,000 worth of "alcoholic beverages," a classification distinct from "vinhos" or wines and "beer," and including several products. All of this product came from Great Britain.

The natives in Brazil use a variety of rum made from sugar cane called "cachaça," a product made and sold at about 1 cent a drink. It is retailed at about 12 cents a quart bottle and seems to answer the purpose. There is some better class rum consumed, the amount imported being included in the above figures.

SODA FOUNTAINS AND SHOES.

FOUNTAINS NEEDED—SHOE-FACTORY OPENING.

Consul J. H. Johnson writes from Santos that there is not a soda fountain in Brazil, so for as he knows, and continues:

Why Americans do not try to establish a trade in that line in this country is beyond my comprehension. There is no better field in the world. It is almost perpetual summer, and the people here, as a rule, prefer soft or mild drinks. A New Yorker who recently visited Pernambuco, Bahia, Rio de Janeiro, São Paulo, and Santos told the writer that there was nothing of the kind in any of those places. He was surprised that no effort had been made to introduce them. He also said that a man with a well-equipped soda fountain located on one of the principal streets in Rio de Janeiro could make a fortune in a few years. The best way to advertise the business would be for some large American firm which handles soda fountains to send a trustworthy man with a complete outfit to Rio, locate in a desirable place, and if necessary keep open day and night. Brazilians much prefer seeing novelties in operation. I am satisfied that the fountains could be sold all over Brazil if the people knew the enormous profits to be derived from the sale of the various kinds of drinks.

The most popular shoes used in Brazil are made in the United States, but they are expensive, on account of the high duty. An English company has a large shoe factory in São Paulo, where they turn out a great number of shoes, and, having to pay no duty, of course can undersell all imported shoes and make a large profit. An American shoe factory would pay well here.

ARGENTINA.

THE INLAND REVENUE.

GOOD RETURNS FROM ALCOHOL, TOBACCO, BEER, AND MATCHES.

Consul-General George C. Cole, of Buenos Aires, supplies an exhibit of the internal revenue of the Argentine Government for 1905, and for the first quarter of 1906, which gives a remarkably clear insight of the developing trade and industries of that country.

The revenue from all sources during 1905 shows a surplus of over $2,500,000 currency as compared with 1904.

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Thirty-one molasses distilleries have been at work during the year, turning out 60,457 tons of alcohol, which yielded 12,000,000 liters of good alcohol and 2,000,000 liters inferior (100° centigrade proof). Six grain distilleries worked up 16,717 tons of maize, yielding 5,000,000 liters of good and less than a million of inferior quality, grade 100°. There has been a notable decrease in wine alcohols, used to give body to the national wines, amounting to some 91,000 liters. The total amount of revenue derived from all classes of alcohols of national production has amounted to over $13,500,000 paper, and that from imported alcohol to $1,750,000, nearly; making a grand total of over $15,000,000. The consumption of alcohol of national production and different grades reached 15,250,000 liters, and of imported alcoholic beverages 5,500,000, total 20,750,000 liters, that correspond to 16,000,000 liters of 100°.

Over 12,000,000 liters of the alcohol of commerce were used in the manufacture of liquors, and 3,500,000 liters of pure alcohol in the preparation of rum (caña). A remarkable decrease is seen in the use of wine alcohol.

Fifty million liters of beer were consumed during the year, being an increase since 1902 of 23,000,000. There are three breweries in the capital, seven in the Province of Buenos Aires, and seventeen in the upper provinces. The revenue from this was over $2,250,000.

TOBACCO, INSURANCE, AND OTHER REVENUES.

The tobacco tax produced $12,500,000 for native grown and about $2,000,000 for imported tobacco, showing an excess over 1904 of nearly $1,000,000. We may estimate the total number of plants at over 100,000,000. The plantations produced more than 8,000 tons of tobacco, of which 6,000 were used for the manufacture of cigars, cigarettes, and pipe tobacco. The total amount imported was a little under 3,000 tons. One hundred and eighty-six million packets of cigarettes were made up; 238,000,000 cigars, 4,000,000 packets of cut tobacco, and 250 tons of leaf tobacco. The first quarter of 1906 shows an increase of nearly $500,000 over the corresponding period of 1905.

There are in the Republic 31 national and 24 foreign insurance companies. The national companies paid on premiums $85,000 paper and $1,680 gold, while the foreign companies paid $266,000 paper and $27,000 gold; showing an increase over 1904 of $32,000 paper, and a decrease of $1,500 gold.

Two hundred and fifty-six million boxes of wax matches were put on the market, being an increase over 1904 of 10,000,000. The revenue received on this account was above $2,500,000.

The specific tax affects 195 national factories and 196 importing houses. The first quarter of 1906 shows an increase of $25,000 on this account.

Comparing the inland revenue of the first quarter of 1906 with the corresponding period of 1905, there has been an increase from alcohol of $89,500; from tobacco, $472,000; wine, $6,280; beer, $374,300; matches, $121,000. Also a decrease from artificial beverages of $1,111, and from insurance, $1,300 gold; which gives an effective increase in favor of the 1906 period of over $1,000,000 currency.

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CORN CROP.

IMMENSE YIELD IN SIGHT—CATTLE DISEASE.

Consul-General Cole also forwards a statistical estimate of the Argentine agricultural department on the probable yield of maize (corn) in that country, which bears out the anticipations of being a record crop:

Area sown, hectares, 2,717,300; estimated yield, tons, 4,951,000. The largest previous harvest was in 1904, when 4,450,000 tons were gathered. Comparing the figures of the present harvest with those of last year we find the 1905 yield to have been 3,574,153 tons, of which quantity 2,277,734 tons were exported, thus leaving about 1,300,000 tons for local consumption. The probable quantity of this year's crop available for export may be arrived at by slightly increasing the allowance for local consumption up to, say, 1,450,000 tons, which will leave about 3½ million tons as the total for shipment abroad.

CATTLE AFFLICTED WITH CARBUNCLE.

Carbuncle is on the increase among Argentine cattle, and the agricultural minister has found it necessary to call the attention of his subordinates to the imperative need of enforcing strictly the clauses of the animal sanitary law. The frequency with which the dispositions of this law have been ignored is common talk among those interested, and it is to be feared that no improvement will be effected by merely issuing circular letters and decrees to minor officials. Something stronger is needed.

AMERICAN MACHINERY WELCOMED—WONDERFUL WAGONS.

The pampas of Argentina, so far as an absolute level is concerned, are said to exceed any other large area in the world. One railroad runs for 175 miles without an inch of curve, and it might have continued in the same way for 30 miles farther. That is indicative of "the real thing" in level land, according to the correspondent of the Los Angeles Times.

The people are said to be perfectly willing to use American machinery when it has been proven to them that it will do more work with less men than the English. Over and above the steadily increasing value of their land, incident to the growth of the country, landowners are said to be doubling and trebling their wealth every few years.

The wagons used are said to be 50 feet long in some cases and from 12 to 15 feet wide. The hind wheels will be from 12 to 14 feet high and the driver's seat 20 feet or more above the ground. The horses used at times number as many as three score to a wagon. The principal idea of such a large wagon is to have something that will not be engulfed by the mud or dust of the bottomless roads of the pampas, and it also has its economical advantage in a country where men are scarce and horses plentiful.

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MARKET FOR WIRE AND MACHINERY.

The British consul at Rosario states that a ready market exists in that district for the following articles:

Lumber, paints, varnishes, agricultural machinery and implements, cement, oils, pig iron, wire for fencing, rope, twine, crockery, glassware, stationery, corrugated iron for roofing, etc., automobiles, electrical appliances. During the year 1904, 56,000 tons of fencing wire, principally from the United States and Germany, were imported at Rosario. Oval wire is said to be replacing round, as it is found to be stronger and its weight per meter is relatively less, and, as added weight represents increased duty, that has an important bearing on the question.

BOLIVIA.

AGRICULTURAL OUTFITS.

COUNTRY NEEDS HORSE AND HAND POWER MACHINES.

Plows for two mules, sowers, reapers, winnowing and thrashing machines, iron barrows, picks, and spades are in requisition in the Sucre region of Bolivia, says a British report, to compete with the American-made articles. Many landowners are awaking to the necessity of replacing the primitive methods mostly in use for others more appropriate to our times, e. g., the wooden spike plow driven by oxen, the treading of the corn by horses and oxen to separate the straw, etc. It must be borne in mind, however, that in this region farm lands are very undulating, the cultivated parts being in large patches frequently divided by broken land, so that one machine must traverse a vast extent of country during its daily work. Steam power is not practical, as fuel is invariably scarce. The sowers and reapers should be drawn by horses or mules and the thrashers, if possible, by hand.

SUGAR REFINING MACHINERY.

The Department of Santa Cruz and the north and east of Chuquisaca, Bolivia, turn out annually some 750,000 pounds of raw, unrefined cane sugar, which, such as it is, is consumed for domestic purposes as much as the foreign article, even when the freights bring the price to from 12 to 25 per cent higher. The method of manufacturing it is most primitive, the cane being crushed by horizontal stone rollers driven round by an ox harnessed to a pole. The surplus of cane is fermented into alcohol of but indifferent quality. The sugar thus elaborated, if properly refined, would be more acceptable than that imported from abroad, and the chief ingredient grows almost wild to an altitude of 7,000 feet above sea level.

WIRE FENCING.

The cattle ranchmen in the eastern provinces of Bolivia are feeling the necessity of fencing in their pastures, which are very extensive. What they require is something cheap but serviceable over level country and broken ground. Perhaps the posts would be better made in

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that country, as there is abundance of ironwood and other timbers which will resist anything, as well as galvanized cast iron.

PORTABLE ENGINES FOR FRANCE.

The diminished shipment of United States agricultural machinery to the Bordeaux section of France is probably owing to the large stocks left over from 1905. Mr. Macdonald, England's consul there, remarks that the higher price of British farming machinery is slowly but surely reducing, each season, the British percentage of the total of farming machinery coming to France. There are exceptions, however, in the case of certain classes of machines, particularly in that of British portable steam engines, which hold their own and are even increasing in favor. In the Department of the Landes hundreds of these portable engines are employed in the pine forests for sawing, and the present high price of turpentine and pine wood makes this Department an exceptionally rich field. British makers should, however, note that large semiportable engines of from 80 to 300 horsepower for producing electric current are now finding their way into Bordeaux from Germany.

ESSENCE FARM ENGINE.

An interesting novelty was placed upon the Bordeaux market at the beginning of 1906 in the shape of a small low-speed essence engine for farm purposes, such as pumping, straw cutting, or any other farm or domestic requirement for a handy motor; these engines, running at 300 revolutions per minute instead of the 1,500 to 2,000 revolutions of the ordinary French engine, are particularly adapted to use by the peasantry. The 2-horsepower engine of this class can be sold at retail in Bordeaux for 800 francs ($160). It can also be furnished with a self-igniting apparatus in the shape of a small dynamo.

TIN DEPOSITS.

PROMISE OF A LARGE OUTPUT—PETROLEUM AND COAL FOUND.

The British consul in the Oruro district of Bolivia reports that wonderful progress is being made there in the development of tin mining. The older enterprises, it is declared, have been supplying themselves with improved machinery, while new and promising mines are being opened up, though the scarcity of capital as yet hinders their rapid development. The most productive tin lodes outcrop at considerable elevations above the neighboring water courses.

The consul says that one of the great difficulties in mining on the Bolivian table-land is the want of cheap motive power. Permanent water power is not generally available to any extent; coal is too expensive, and the native fuels are getting scarce. A solution appears to have been found to some extent in the employment of anthracite-gas engines. Work is carried on at an altitude of from 12,000 to 14,000 feet. The gas engines in use at Oruro give about a 70 per cent efficiency, using about 1.5 pounds of anthracite per horsepower per hour. The possibility of reducing the fuel consumption, even by a fractional amount, is of supreme importance. The consumption should not exceed per hour 1¼ pounds per horsepower. According to

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the consul's report, the machinery of most interest at Oruro at present is the various classes of gas-producer and oil-motors; machines for the separation of ores, such as tin, pyrites, blende, and galena; rock-boring machines, electric machinery for power transmission and lighting, electric mine hoists, etc., and ore-concentrating machines.

The British vice-consul at Sucre reports that petroleum exists in the country, but it has not been worked as yet for commercial ends. Coal fields have also been found in the Department of Tarija, almost on the boundary line of Argentina.

KNOWLEDGE CREATES NECESSITIES.

The people of Bolivia never knew there was such a thing as a portable india-rubber bath, and that it was a most convenient article, until they recently saw one, writes a British agent from Sucre. There are other articles that become very necessary when known. Ten dollars has been paid for 4 kilos (8¼ pounds) of ice in a case of medical emergency, simply because there was but one ice-making machine in the place. Many Bolivians never imagined that a certain brand of glycerin soap could quickly remove severe roughness of the skin until the correspondent gave away some of his private stock. Many persons in his district had no idea that soda water could be conveniently carried on a journey until they happened to see an apparatus for the aeration of liquids.

AMERICAN HOUSE OPENS A BRANCH.

Mr. William B. Sorsby, minister to Bolivia, writing relative to the Bolivian railway construction, reports that the house of W. R. Grace & Co., of New York, with branches at San Francisco; Lima, Peru; and Valparaiso, Chile, established a branch at La Paz on June 1. With the establishment of this branch the commercial and banking facilities between Bolivia and the United States are materially facilitated.

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CENTRAL AMERICA.

REPUBLIC OF PANAMA.

STOCK RAISING AND DAIRY FARMS.

HIGH MEAT AND MILK PRICES CREATE AGRICULTURAL OPPORTUNITIES.

According to statistics furnished by Consul J. C. Kellogg, of Colon, the Republic of Panama has within its territory about 65,000 cattle, 28,000 hogs, 3,000 goats, 17,000 horses, and 1,500 mules. Mr. Kellogg gives further information as to cattle and dairying, showing favorable openings for Americans to engage in these industries on the Isthmus:

It is estimated that 31,300 cattle and 15,300 hogs were butchered in the seven provinces during 1905. The average market price of beef is from 20 to 25 cents gold per pound, and the quality is very poor. As a consequence of this high price of beef the working classes complain very much, and an effort is being made to induce the authorities to remove the present duty of $10 a head on steers and $8 a head on cows when they are imported alone for butchering purposes.

After many complaints made against the cruel methods practiced in the slaughterhouse in Colon and the lack of sanitary inspection of all animals to be butchered for market purposes, the authorities have caused more humane methods to be instituted, and have agreed to the inspection of all such animals destined for food by a sanitary official.

Comparatively few cattle are exported from or imported into Panama For breeding purposes bulls, cows, and heifers are allowed by special permission to be imported free of duty. The importation of steers and cows for butchering purposes from Cartagena, Colombia, has been suspended, as the Panamanian Government imposes an import tax of $8 gold per head on cows and $10 gold per head on steers.

CLIMATE UNFAVORABLE TO BLOODED STOCK IMPORTATIONS.

A few of the cattle raisers in Panama have imported from the States Jersey, Holstein, Durham, and Red Polled Angus stock for breeding purposes, but with poor results, due, no doubt, to the fact that such blooded stock requires great attention and care, especially in such a trying climate as exists here, which is utterly against them. An American, who has a ranch in the Canal Zone, informed me that he had lost a great deal of money in trying to improve the native stock by crossing them with blooded stock which he had imported from the States.

I am informed by reliable authority that no quarantine restrictions are put upon imported cattle. The current prices for native cows are from $35 to $50 gold; for steers, $35 to $40 gold. The average weight of live native cattle is from 700 to 800 pounds; dressed, from 300 to 450 pounds.

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In the Canal Zone there are several cattle raisers. The two largest have their ranches at Gatun and Mindi. At Monkey Hill and at other places along the line a few cattle are raised, varying from 5 to 20 head each. The Isthmus is supplied almost exclusively with cattle from the ranches of the interior of the Republic, which range in size from 1,000 to 4,800 acres. The freight rates along the line of the Panama Railroad are, by carload lots, according to distance and based upon the weight of 1,000 pounds per head, 17 to 19 cents gold being the minimum rates.

PRIMITIVE DAIRY METHODS.

There are no modern dairies in this country, but in the Canal Zone, in the city of Panama, and throughout the interior establisments may be found where cows are kept and milk, such as it is, is furnished to consumers. The management of these so-called dairies is carried on in a very primitive manner and furnishes a poor quality of milk and which, in quantity, is not sufficient to supply the demand. The milch cows are rarely given shelter, very little care is taken of them, they being compelled to forage around for feed. Milk is sold at from 20 to 30 cents gold per quart and is usually watered before it reaches the consumer, and, poor as it is, is hard to obtain. Hence, condensed milk and evaporated cream have taken its place almost completely in hotels and private houses. There is reason to believe that modern dairies, managed by experienced persons, would be paying investments in Colon, in the Canal Zone, and in the city of Panama.

On the farms in the interior butter and curd cheese are made for home consumption only. There are about 15,000 acres of pasture land in the Republic. No tame grasses and very little corn, only in patches of from 1 to 10 acres, are planted for feed. The wild grasses that grow throughout the country are the "Lowbite," "Para" or "Spanish," and the "Guinea." The "Para" or "Spanish" grass furnishes the largest amount of cattle feed. It covers the ground thickly and grows very fast after being eaten off by stock. It is more hardy than the "Lowbite" or "Guinea" grass and stands the dry season better, retaining moisture about the roots long after the other grasses have dried up.

AMERICAN SHIPMENTS IN FOREIGN BOTTOMS.

Consul Kellogg also writes that during the twelve months ending May 31 about 168,000 tons of coal arrived at that Panama port, making an average of 14,000 tons per month.

All of this coal came from the United States, principally from Norfolk, Va., and was shipped in foreign bottoms flying the Norwegian flag. It seems rather strange that none of this freight was carried in American bottoms. It might be well to say that, with the exception of the steamers of the Panama Railroad Steamship Line plying between New York and Colon, not a single freight or passenger steamer flying the American flag has entered Colon during the year named, notwithstanding the fact that cargoes of all kinds are constantly arriving there for the isthmian canal and for the local and transit trade. It is true, however, that two-thirds of the freight brought by sailing vessels arrives in American bottoms, but by far the largest part of the total freight is carried by foreign steamers.

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HONDURAS.

IMPORTS FROM UNITED STATES.

HOW TRADE MAY BE EXTENDED IN CENTRAL AMERICA.

Consul F. S. S. Johnson, of Puerto Cortez, develops more points on neglected trade opportunities in Honduras, as follows:

An energetic salesman with a knowledge of the Spanish language, sent to study the needs and requirements of the people, would learn how to best supply the market. For instance, the peasant does not wear the same kind of a shoe that the merchant does, nor do the lower class of women have the same kind of a dress that the better class wear, for bright and gay colors are the dream of the peons' lives. Many articles not to be had in the United States, purchased in Europe and worn by the women here, could be made in America at a fair profit; for instance, the light shawl which the women throw over their shoulders as well as the silk scarf to cover their heads. I do not believe that an extension of trade can be secured by the present system pursued by many of our manufacturers in asking consuls for lists of importers and mailing to these price lists and catalogues, which find their way to the wastebasket. The trade of this Republic is open to the world, and the opportunities should be embraced by Americans.

Thus far every inducement by the Hondurans is held out to the American as well as his goods. One of the largest American colonies in Central America is located in this consular district. With the friendship of the Honduras people and Americans in possession of the leading business houses in this consular district, can there be any reason for our manufacturers not seeking closer trade relations with Honduras? The four lines of steamers operating between this port and the United States should be kept busy in bringing goods to this country instead of being sent back in ballast.

COMPLAINTS OF IMPORTERS.

For those persons having an established trade in Honduras I desire to draw their attention to some of the faults complained of by importers at this place. As the consular invoice intended for Honduras must be in Spanish, it is necessary that the names of all of the articles shipped should be in that language. A mistake in the translation may be the cause of trouble and inconvenience at the custom-house, and a correction is not always allowed. A mistake thus made may be the means of a higher rate of duty, according to a recent case.

All cases should be marked with the name and address of the importer and the number of the package, which should be entered on the consular invoice. If this rule is not followed, customs officials will have trouble in distinguishing one lot of goods from another. Unlike the customs duty of the United States, where a separate duty is paid on each article imported, here in Honduras if expensive merchandise is packed with inferior goods no distinction of customs duty is made, the higher rate of duty being charged on both classes. In order to avoid this, I would suggest to our shippers that each class of goods be separately packed.

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Another great complaint made by importers at this port is that Americans do not follow out shipping instructions, which, instead of being looked after by some responsible person, are generally left to a clerk who is not overcareful in carrying out the Honduras merchant's wishes as to the shipment of the goods. After the marking of boxes or packages, the contents should be noted on the consular invoice. Of late many errors have been made in not correctly stating what each box or package contained, causing the importer as well as the customs officials extra work and expense.

I regret to see the great falling off in the importation of American lumber. There is no duty, and the past few months there has been a great demand for it. Nearly all of the material used in the building of houses is imported from the United States; not only lumber, but iron roofing, blinds, doors, paint, etc.

LUMBER IMPORTED.

RESOURCES OF THE COUNTRY SUBJECT OF MUCH INQUIRY.

Consul D. R. Wood, writing from Ceiba, says that the receipt of quite a number of letters regarding the prospect of developing the timber lands of Honduras show that the people interested in the lumber industry in the United States are beginning to look abroad, where there are enormous tracts yet untouched by the ax, for a future supply. The consul adds:

There are in the interior of this country large tracts of pine lands of virgin forest. A few sawmills are in operation, but their production is very small. All of the lumber used in this town and vicinity for building and construction purposes is imported from the United States, mostly through southern ports. A small amount of the mahogany, cedar, and other hard woods has been cut near the rivers. Many concessions for exploiting mahogany lands in this district have recently been granted by the Honduras Government, and short tramways are being planned to get out the logs. The exportation of mahogany from here should show a decided increase in the next few years.

At present there does not appear to be any way to utilize the pine timber resources of Honduras—as the pine is found mostly in the interior—until the country is provided with transportation by railroads. Still, this day may not be a long way off, as short railroads and tramways, intended for transportation of bananas, have been built and are in operation in many places on the coast, and after the coast is furnished with ample transportation facilities it will not be such a difficult matter to make extensions to tap the interior.

GUATEMALA.

INCREASING COMMERCE.

UNITED STATES HAS OVER ONE-THIRD OF THE TRADE.

Consul-General A. A. Winslow, of Guatemala City, makes the report that, according to the latest published reports, the foreign commerce of the Republic of Guatemala for the year 1905 aggregated

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$15,082,202, U. S. gold, the exports being $8,237,758, and the imports $6,844,444, showing a balance of $1,393,314 in favor of that country. Mr. Winslow continues:

The importations for 1905 exceeded those of 1904 by $1,803,302, of which increase the United States secured $1,265,562, England $258,978, and Germany $95,372. Of the imports for 1904 the United States supplied 36 per cent, England 26 per cent, and Germany 25 per cent; while for 1905 the United States furnished 45 per cent, England 23 per cent, and Germany 21 per cent.

The exports show an increase of $685,892 for the year 1905, during which time the United States took $582,848 more than in 1904 and Germany $570,719 more, while England took $273,822 less. The principal increase was in coffee, the United States taking 82,063 pounds more of coffee in 1905 than in 1904, and Germany 110,540 pounds more.

Of the exports for 1904 the United States took 30 per cent, Germany 46 per cent, and England 17 per cent; while during 1905 the United States took 35 per cent, Germany 50 per cent, and England 13 per cent.

This is a gratifying showing and should encourage the manufacturers and producers of the United States, but it falls far short of what it should be. I feel this is one of the best fields for the American exporter, as there is no home competition to contend with and American goods are rated the best. The trouble has been that but little has been done by the American merchants or manufacturers to cultivate this trade, while the English and German houses have pushed business here for years, and there are several branch houses in the field pushing their wares.

It will pay to work this country more thoroughly. It is right at our door and can be opened economically and promptly. When the Guatemala Northern Railway is completed Guatemala City will be only six days from New York, and the rates for freight or passengers should be cheaper than from San Francisco to New York. This trade should be ours, and we can have it if we will go after it.

The American shipper has made a good showing for this country during the past two years. There has been a decided improvement in the packing of wares, but there is still room for improvements. Great care should be taken to pack according to instructions. In many cases the goods must be sent into the interior on mule back. In this case packages should weigh from 100 to 150 pounds, never more than 200 pounds.

WEST INDIES.

ISLAND OF CUBA.

AMERICAN FIRMS NOT FURNISHING STYLE PIANOS WANTED.

In reply to a New York letter, Consul Max J. Baehr explains the piano trade situation at Cienfuegos as follows:

There is only one exclusive piano dealer in this Cuban city. He disposes of 12 instruments a year, and has now on hand 7 new and 20 second-hand pianos, the latter used for renting purposes. The sales price runs from $260 to $400 cash, the installment plan being also used,

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the payments being $10 per month and upward. This party states that he handles four European and one American makes of pianos, there being very little demand for the latter, notwithstanding that they pay only 36⅔ per cent ad valorem, while the former are taxed 52 per cent. The most popular pianos are the small French styles in plain cases. The best are made of solid mahogany and cedar, replacing veneered cases, which suffer greatly in the tropical climate on account of the worm. The strings should be plated or gilded. The pegs and all pieces of iron or metal should be nickel plated to prevent rust. The demand is for a 7-octave and 3-pedal piano.

The Cubans are music-loving people, and it seems to me out of all proportions that a dealer in a city of 30,000 inhabitants should not be able to sell more than 12 pianos a year, and I have no doubt that a good salesman, speaking Spanish, would find a splendid opportunity to introduce American pianos in this community.

Mr. Baehr gives the names of the piano dealer mentioned and three Cienfuegos fancy-goods houses who now occasionally effect the sale of a piano, and they can be obtained from the Bureau of Manufactures. Correspondence with firms in Cienfuegos should be in Spanish.

REFRIGERATORS ARE NEEDED.

Consul Ross E. Holaday, in a report from Santiago de Cuba, says that the trade in refrigerators there is not anything like what it ought to be. The consul continues:

Comparatively few Cubans use refrigerators. While there is considerable ice consumed, the people buy it in small quantities, 5 or 10 cents' worth at a time, from the small stores or tiendas in the neighborhood. It should be remembered that until the American intervention ice was a rare luxury with those people, and they are not accustomed to the use of it or to the economical and satisfactory results to be obtained by using refrigerators. The exorbitant price asked by those dealers who handle refrigerators may be another reason for their limited use. Most all of the hardware stores have a few on hand, but they are not high-grade refrigerators and the prices demanded for them are very high. High-grade refrigerators, if not purchased direct from the manufacturer in the United States, are usually bought through a manufacturer's agent here. If some local firm would put in a nice line of refrigerators, displaying them so as to attract the attention of the public, and at the same time distribute pamphlets or folders setting forth the economy and convenience to be gained by their use, I believe considerable business would be done. [A list of firms at Santiago de Cuba who might accept agencies for refrigerators is given by Mr. Holaday and can be secured from the Bureau of Manufactures.]

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NORTH AMERICA.

REPUBLIC OF MEXICO.

THE STEADY INCREASE OF IMPORTS.

UNITED STATES INCREASES ITS LEAD—FALLING OFF FROM EUROPE.

Figures covering the imports into Mexico during the first half of the current fiscal year show that their total value was $86,796,214, against $88,590,966 in the corresponding period of the preceding fiscal year, according to the Durango correspondent of the Iron Age. The countries which supplied the greater part of the total are shown in the following exhibit in the order of their importance, together with the value of the imports from the same countries in the first half of the fiscal year 1904–5:

	1905–6.	1904–5.
United States	$51,408,988	$49,216,637
Germany	9,793,141	11,331,271
Great Britain	9,668,134	10,407,314
France	7,770,233	8,740,065
Spain	3,634,480	3,811,955
Belgium	1,232,999	1,640,219
Italy	591,506	714,893
Austria-Hungary	489,104	609,223

It will be noticed that there was an appreciable increase in the imports from the United States and a falling off in those from the three chief competing countries—Germany, Great Britain, and France. Imports from Canada increased $47,601.

IMPORTS VIA UNITED STATES.

Copies of a new tariff have been issued by the Mexican Central Railway on goods from Europe entering Mexico via Tampico. An agreement has been entered into with the National Railway Company of Mexico and the Mexican Central by which goods entering Mexico via Galveston and Laredo or Eagle Pass will pay the same rates as if entering via Tampico. For instance, the rate to Monterey on European goods will be the same if it comes via Tampico or Galveston. Formerly, says a British consul in Mexico, many shippers used the Galveston route, shipping goods at a cheaper rate to Flanepantla (a suburb of Mexico City) and carting into town, than they would have been able to obtain by shipments direct through Tampico or Vera Cruz.

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This arrangement, he adds, will cause a notable statistical increase in European shipments to Mexico, as often goods entering via Galveston were classed as American in the Laredo custom-house.

COUNTRY'S DEVELOPMENT.

MODERN TERMINAL FACILITIES AT VERACRUZ.

Consul W. W. Canada reports from Veracruz on port improvements for that city and other Mexican development, as follows:

The Government has formed a contract with the "Compañia Terminal de Veracruz, S. A.," representing the four railroad lines entering the city, for general terminal improvements. A union station is to be erected, also warehouses and other structures for freight, provided with modern labor-saving machinery. The entire shipping interests of this harbor will be controlled by the company, including lighterage, discharging and loading of vessels, towing, supplying vessels with fresh water, storage of merchandise, etc. By an important clause in the contract the company agrees to improve, cheapen, and facilitate the business at this port. Special privileges have been accorded.

EXEMPTION FROM IMPORT DUTIES—MINERAL-OIL CONCESSION.

The Government has now under consideration, and with the probability of passing it, a bill providing for the free entry of all imports of primary necessity to the Territory of Quintana Roo for another year, dating from July 1, 1906.

The English firm of contractors, S. Pearson & Son (Limited), has secured a concession authorizing it to prospect for and exploit all deposits of mineral oils that may be located by said firm on waste Government lands, as well as on private lands, on which the Government, however, has reserved all rights to mineral deposits that may be found thereon. The concession covers lands in the States of Veracruz and Tabasco. A mineral oil has been found in the southern part of the State of Veracruz, and in other parts to the south of here, and the company, in compliance with its agreement, is erecting a refining plant at Minatitlan. The primary object of the firm is, doubtless, to secure a supply of fuel oil for the engines on the Tehauntepec National Railroad, which road the company is managing for the National Government.

MANY INDUSTRIAL WORKS IN VERACRUZ.

Consul Canada reports as follows on the industries of Veracruz and vicinity:

In the State of Veracruz there are a number of large cotton mills, a jute mill, a petroleum refinery, several breweries, soap, cigar and cigarette factories, alcohol distilleries (cane), flour mills, candle and match factories, brickyards, tanneries, a wire nail-works, several small oil mills, also a few furniture factories that hardly merit the name. In the States of Tabasco and Chiapas nothing much is done in these lines. Small repair shops and foundries are established at various points along the coast and in the interior, but a fair-sized

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piece of work can only be done at the Government arsenal at this port, or at one of the railway repair shops. The four lines that have their termini at this point have repair shops at the following places: The Mexican Railway at Orizaba and at Veracruz; the Interoceanic Railway at Jalapa; the Veracruz and Pacific Railroad at Tierra Blanca, and the Alvarado Railroad at Alvarado; all in this State. The National Railway of Tehuantepec also has extensive machine shops, as they are engaged in reconstructing the road and constructing the harbor works at Coatzacoalcos, on the Gulf, and at Salina Cruz, on the Pacific. The petroleum works at Veracruz operate a good machine shop, for the repairs of engines, steam pumps, and can-making machinery, in connection with their establishment. Outside of this there is a foundry and several small machine shops here. At Frontera, in the State of Tabasco, repairs can be made to small vessels and machinery.

[Mr. Canada gives the names of the principal importers of all kinds of machinery at Veracruz, which can be secured from the Bureau of Manufactures.]

CATTLE FOR THE CUBAN MARKET.

The local press of Veracruz bewails the loss of the export trade in cattle with Cuba.

The cattle dealers have expressed the opinion that in the near future not a single head of cattle will be shipped from the port of Veracruz to that island. During the months of April, May, June, and July of 1905 some 12,000 head were shipped, but since that time the trade has been falling off and is rapidly diminishing, only several small shipments having been made since then. The reasons advanced are that the cattle of Venezuela and Colombia may be had at a lower figure and that they are better than Mexican cattle. Those countries are anxious to capture this trade and are doing everything possible to secure the business. Thousands of head are shipped monthly to Cuba from those Republics, and these are sold by weight, an evident advantage.

RAILROAD CONSTRUCTION.

Señor Rafael Fernandez, the present alcalde of Tlalixcoyan, has obtained the concession from the Federal Government for the construction of a line from the station San Antonio, on the Veracruz and Pacific Railroad, to terminate at Tlacotalpan, passing through Tlalixcoyan and San Cristobal Llave. This entire region is very rich in agricultural lands and offers fine grazing for fattening cattle. This road will cheapen and facilitate the transportation of the heavy tobacco crop from the San Andres district, which, instead of being carted or packed to a point on the river, then transported by steamer to Alvarado, will be transferred at Tlacotalpan. The commerce of Veracruz will be greatly benefited, possibly to the detriment of the old Alvarado road. The State government gives the holder of the concession $2,000 Mexican currency for every kilometer of construction.

A FIELD FOR AMERICAN IMPROVED STARCH MACHINERY.

The Mexican manufacture of laundry starch in the consular district of Veracruz is still conducted in the most primitive manner.

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Along the banks of the Papaloapan River, say from Alvarado to San Andres Tuxtla, the natives are engaged in making this starch from the "yuca" (cassava, which is also a staple stock food article in Florida), for the cultivation of which these river lands are well adapted. No machinery worthy the name is employed. The operation consists in first peeling the tuber, scraping the remainder into pulp, and then washing the substance in water. After the water, now charged with this starchy matter, has had time to settle the product will be found deposited on the bottom of the tank. The water is then decanted and the starch dried. We are informed that not a single starch-making establishment exists worthy of the name of factory.

In this part of Mexico the starch made of the "yuca" is preferred to any other. At present it sells at wholesale for $3.25 Mexican currency per arroba ($1.63 American for 25 pounds), but this is owing to a strong demand from the State of Yucatan at the present time, which market is being supplied from here. At times the price is much lower. The Mexican tariff makes no distinction in the classification of the various kinds of starch, whether for laundry purposes or any other, and the import duty is quoted at 10 cents per kilogram (5 cents American) per 2.20 pounds legal weight (material and wrapper). We know that in the more northern parts of this Republic starch made from corn and wheat is manufactured, but very little finds its way to this section of the country. It would appear that this consular district ought to prove a worthy field for the American manufacturer of starch-making machinery.

IMPROVED MAIL SYSTEM.

EXPEDITIOUS METHODS—MOTORS FOR LOCAL USE.

Consul-General A. L. M. Gottschalk, recently transferred from Callao, Peru, to the City of Mexico, sends his first report from the latter place on improvement in Mexican mail system, from which the following points are taken:

A marked improvement has been obvious of late in the postal facilities offered the public in the City of Mexico. Collection of mails from Mexico City letter boxes takes place every forty-five minutes, and there is a general sending out of letters from the postal substations through the city every hour and a half. A city letter thereby comes into the addressee's hands only a little over two hours after actual mailing. A noteworthy feature is that all letters on being issued bear upon the envelope the name and official number of the postman to whom they have been intrusted for delivery. To facilitate correspondence mails by railroad to Vera Cruz, Guadalajara, Ciudad Juarez, and Nuevo Laredo are accepted up to a half hour before the actual starting time of trains. Mail matter is taken from the post-office to the various railroad stations by a corps of bicycle carriers.

Special care is taken in handling printed or advertising matter. It is recommended by the Mexican postal authorities that publishers of newspapers or periodicals, etc., send their publications intended for delivery in any Mexican city to the postmaster of that city in one package with a list of the number of separate packages contained therein. Until recently mail wagons of ordinary type drawn by horses or mules were used. These are likely to be supplanted by automobiles. A large vehicle of this description with three tons capacity has been purchased and will be put into use. This purchase is likely to be

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followed by others of similar character, the roads of the City of Mexico being well adapted to the use of motor cars. The consul-general suggests that American manufacturers of automobiles of the mail-delivery type would do well to communicate with the postmaster-general, whose address is "Direccion General de Correos, Mexico, D. F. Mexico."

INVESTMENTS AND ENTERPRISES.

THE FAVORABLE CONDITIONS IN MAZATLAN—GOOD TRADE OPENINGS.

Consul Louis Kaiser sends an instructive account of Mazatlan and its surroundings and trade opportunities, as follows:

The city has over 21,000 inhabitants, all of whom seem to be fairly prosperous, and all who desire to work can find plenty to do. The American colony is not very numerous, and it does not exceed 50 persons, all of whom are making more than a living. The city, for a tropical country, is very healthy, and is said to be the cleanest city on the west coast of Mexico. It is the commercial center and distributing point for the west coast, and has extensive wholesale houses in all the different branches of trade. The State of Sinaloa is very rich, its sources being mining, agriculture, and stock raising. We have three important banks here, which pay annually from 8 to 21 per cent dividends, and failures of banks are unknown here. The city is also the military headquarters of the State, and a regiment of infantry is stationed here.

REQUISITES FOR INVESTMENTS.

Americans desiring to locate here and engage in any business must be able to speak, read, and write the Spanish language, and a large capital is imperatively necessary, as all of the larger houses here are branches of German or Spanish houses and command an almost unlimited capital. Goods are sold on six months' time, with the privilege of another six months' extension, on which they charge 10 to 12 per cent interest per annum. There are some good openings in manufacturing enterprises here, such as soap, crackers, candy, glass, paper, rope, sash and blinds, fish and fruit canning, and flouring mill.

Owing to the building of the extension of the Southern Pacific Railroad to Guadalajara, by way of Mazatlan, real estate has advanced to a price at which it is very risky for a stranger to invest. Government land can be denounced (located) at 1.20 pesos (60 cents) per hectare (equal to 2.471 acres), while nearly all timber lands are in the hands of speculators and are held for higher prices.

CLIMATE AND TRANSPORTATION.

From November to the latter part of June the climate is all that a person could wish for, during which time there is no cloudy or stormy weather; neither have we here the cold, chilly rains so often encountered in the United States; neither does it ever freeze here; hence live stock of any kind does well during the entire year.

The rainy season usually begins the latter part of June and continues until the end of October. The rain pours down almost daily, making it dangerous to travel either by land or sea, and the local steamers as well as stages discontinue their operations, as the roads become impassable and the rivers spread out of their banks, which makes traveling not alone unpleasant but often dangerous.

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The Pacific Mail Steamship Company has three steamers per month calling at this port, going south to Panama and three going north to San Francisco, making six steamers per month for this company.

The Pacific Coast Steamship Company's steamer *Curacao* makes bimonthly trips to this port and Lower California from San Francisco. Cia. Naviera del Pacifico is a local company, and is operating ten steamers north and south. The Occidental Railroad is the only completed railroad in the State, and is 45 miles long. It was built by English capital and is much neglected, as the roadbed and rolling stock are very old and in bad condition. The Kansas City, Mexico and Orient Railroad is now in operation from Topolobampo, a small seaport to the north of this city, to Fuerte, a distance of about 75 miles, and when completed to Kansas City will shorten the distance between New York and Mexico over 500 miles. The Southern Pacific Railroad is being extended from Guaymas, Sonora, to this port and from here to Guadalajara, a distance of over 1,000 miles, and the first 40 miles, from Guaymas to Torin, are completed and in operation. It is expected to reach Mazatlan the latter part of next year, and this will be one of the most important events in the commercial history of this city.

Firms or individuals contemplating making investments here should under all circumstances make a personal inspection, and study the conditions and resources, and at a comparatively small outlay could obtain information which it would be impossible to obtain otherwise.

RICH STATE OF SINALOA BEING OPENED UP.

Railroad extensions are opening up the resources of the rich Mexican State of Sinaloa.

The Kansas City, Mexico and Orient Railroad are now operating several hundred miles of their new line, which is being rapidly extended toward the United States. The Southern Pacific Railroad have now 40 miles of their new extension from Guaymas to Guadalajara ready for traffic, and will put that much into service at once. They have large surveying parties in the field, and soon the grading of the road will commence along the whole line, and shortly Mazatlan will be connected with Guaymas by railroad. The International Railroad of Mexico is continuing surveying parties in the field, and it is the general belief that the 175 miles from Durango to Mazatlan will soon be filled with laborers constructing the line of extension to the port of Mazatlan, which will open a magnificent mining and agricultural country to business.

The mines of Sinaloa consist of gold, silver, and copper quartz, and millions of dollars are invested in this industry, being mainly American capital. Some of the largest and best mines in Mexico are located in this State, and with the advent of railroad transportation many more will be opened. The Government price on land in Sinaloa is 1.20 pesos (peso=49.8 cents) per hectare (2.471 acres), and from private parties land can be bought from 2 to 25 pesos per hectare.

IRON AND STEEL MILLS.

Consul James A. Le Roy, writing from Durango, Mexico, remarks that "it is to be said that there is as yet a comparatively very small market for ironworking machinery in Mexico." He continues:

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Such deposits of iron as this country has, notably the great 'iron mountain" on the outskirts of this very city, are as yet but little worked. The iron and steel plant at the "iron mountain" is at present shut down, the company being involved in litigation. The largest iron and steel plant in Mexico is located at Monterey, and is constantly turning out a greater quantity of structural iron and steel. The greater part of structural iron and steel being used in Mexico still comes, however, from the United States and elsewhere abroad. There are iron foundries scattered about the country, but mostly they are but small affairs, doing repair work or turning out merely crude and small manufactured articles. [The names of some of these iron and steel establishments can be obtained from the Bureau of Manufactures.]

There are the big mining camps and smelters, with their repair and construction shops, etc., and there are besides the railroads of the country with their shops. The order has been given for the construction of large new shops and a roundhouse at the terminus of the Mexican International Railroad in this city and work is now beginning, the presumption being that this is done with a view to the extension of this line, either from here across the Sierra to Mazatlan or to Guadalajara through Zacatecas State, or both extensions.

CEMENT IN DEMAND—FREQUENT SHOE COMPLAINTS.

Consul John B. Richardson reports an increase in building and repairing in Jalapa.

The city is built of stone and cement, so it will be seen that the use of cement is large. What is true of Jalapa is true of other cities in Mexico, and the value of commanding the cement market is obvious. The Jalapa street railway has changed hands and will be extended, mule power being continued. Cable and electricity have been under consideration and may yet be adopted. The streets, however, are steep, narrow, and rocky.

Gentlemen have been complaining of the quality of shoes obtained from the States. The complaints are too common and warrant the inference that the American exporter regards the foreign market as a sort of dump pile for goods unsalable at home. The fault is in the leather or the polish, which is exclusively an American article. It is hardly probable that when strenuous endeavors are being made to capture and hold the shoe market any dealer designs to sell inferior goods. Mexican gentlemen are fond of good shoes and are willing to pay for them, but they do not like to buy a pair a month, as one person complains of having been obliged to do. A shoe that retails in Chicago for $3 gold sells here for $10 in silver or about $5 gold. The average wages are about $40 silver per month, so it may be easily seen that American shoes can not be worn if they are not durable.

CANADA.

TRADE WITH NEW ZEALAND.

PREFERENTIAL TARIFF DISAPPOINTING—INTERNATIONAL EXPOSITION.

The June issue of Industrial Canada gives the imports and exports to New Zealand from Canada, making an aggregate of $24,000,000 of imports from New Zealand of dutiable goods, and as much more of

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imports of free goods. But the Canadian Manufacturer quotes the government's statistics to show the absurdity of that statement.

The imports into Canada from New Zealand for the year 1905 aggregated only $50,126. The exports from Canada amounted to $532,582, which was nearly $50,000 less than the exports of the preceding year. There is a direct steamship line between Vancouver in Canada on the Pacific coast to New Zealand, and a large trade was expected to grow up because of that direct line. The growth in the exports has not been very rapid, as it was less in 1905 than in 1904, and only $82,000 more in 1905 than in 1903. But the exports are of such character as might well be provided by the United States. Of the total of $532,582 in 1905 of exports to New Zealand from Canada, $451,046 were of manufactures, the remainder, $81,336, being credited to the products of the mines, the fisheries, forests, animals and their produce, and agricultural products. Paper was the chief item of manufacture exported, and agricultural implements came next, then cotton fabrics, furniture, leather, rubber goods, machinery, and hardware, all of which things are produced for export in the United States to much greater advantage than in Canada.

An international exhibition is to be held in New Zealand from November, 1906, to March, 1907, and the Canadian government is to erect a special building which will be devoted exclusively to the accommodation of exhibits illustrating the natural and manufactured products of Canada. Space is to be allowed in this building for Canadian manufactures free of charge, provided the nature of the exhibit offered is of a kind in which a trade with New Zealand can be initiated or increased. The Canadian government also offers to pay the cost of transportation for such products.

The products of New Zealand are admitted to Canada under the preferential tariff allowed to Great Britain of 33⅓ per cent, and New Zealand also gives a preference to British products, which includes those from Canada.

DOMINION PARLIAMENT.

ACTS OF THE RECENT SESSION—STRICT SUNDAY LAW.

The Canadian Parliament, which recently closed its session, is receiving criticism from opposition newspapers, although they acknowledge that it did some very good work.

The law granting pensions to ex-cabinet ministers was repealed, but the law, much criticised, increasing the "indemnity" or pay of members of Parliament was not repealed. Very little tariff legislation was enacted during the session. Worn rails sent by Canadian railway companies to the United States to be rerolled must, in the future, pay a duty on reentering Canada of 25 per cent of the cost of rerolling. A law was passed providing a penalty for members of Parliament who take compensation for services rendered in connection with any matter before either house or before any committee of either house. But this does not apply to such work before the public departments. The United States law applies in both such cases.

One very popular act was that giving to the railroad commission power to control express rates, and also giving the commission power

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over telephone companies and providing for the compulsory exchange of long-distance telephone messages.

Legislation was passed to set aside large forest reserves, which is greatly commended. Another act excludes paupers, criminals, and those mentally or physically insane, and all persons likely to become a charge on the public from being received as immigrants.

SABBATH-DAY RESTRICTIONS.

An act which caused much discussion regulates work on Sunday. This law goes into effect the 1st of next March. It provides that no person shall sell, or offer for sale, or purchase any goods, chattels, or other property, or transact any business on the Sabbath day. Persons may do acts of mercy and attend to religious work, receive and transmit telegraph and telephone messages, and do certain necessary work, and even move trains and vessels and transport passengers on the Sabbath. But no employee is to work on Sunday unless allowed twenty-four hours' rest in the next six days. Games, meetings, etc., are not allowed where a fee is charged. One provision states that "no Sunday newspapers can be brought in for sale on Sunday." That seems to be aimed at American newspapers.

GREAT NORTHWEST DEVELOPMENT.

The four big railroads building in the Canadian northwest, to say nothing of the operations in the east of the Dominion government in connection with the National Transcontinental from Winnipeg to the Atlantic seaboard, are adding a great deal to the prosperity of that section. The Winnipeg Commercial, a careful periodical, has this glowing description:

Never before in the history of this great and wonderful West have the prospects for a record crop been so bright as at the present moment. The one unfavorable report is from southern Alberta, where in a few districts winter wheat was a failure owing to the very dry winter. The killed lands have been resowed with coarse grains, which are rarely, if ever, a failure. The Commercial predicted a crop of 85,000,000 bushels for 1905. We were high by a few thousand bushels. We now estimate the wheat crop of 1906 at about 97,000,000 bushels.

Mr. William Whyte, one of the vice-presidents of the Canadian Pacific Railroad, recently remarking on J. J. Hill's Canadian railroad plans, said:

"If Mr. Hill, after completing his railway connections, can induce the wholesale dealers of St. Paul and Minneapolis to cut their prices for Canada, then the entire western trade of the Dominion will be lost to eastern Canada, if the country is not lost to the British Empire."

Mr. Whyte's theory may be colored as a Canadian Pacific Railroad man because of the probable effect of Mr. Hill's competition on the traffic of that road. Instead of being one road in that country, the Canadian Pacific will be one of many.

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AFRICA.

SOUTH AFRICA.

FARMING IMPLEMENT MARKET.

KEEN COMPETITION FOR AGRICULTURAL TRADE—PRESENT CONDITIONS.

Writing from Cape Town, Consul-General H. L. Washington describes the present status of the agricultural-implement trade in South Africa in the following letter:

During 1904 the value of agricultural implements (not including harvesting machinery) imported into Cape Colony from the United States of America amounted to $325,525. It is stated by one of the largest dealers in agricultural implements here that the whole country seems at present overstocked with these articles, and to substantiate this he mentioned that a member of a large Canadian manufacturing firm recently came to examine the possibilities of trade after the failure of a former agent, and became convinced that the field was thoroughly covered, and therefore did not consider it advisable to incur any expense in attempting to get business at this time. I am also informed that there is at times difficulty in getting money for goods sold, owing to the depression which has prevailed throughout the country.

SALES METHODS.

There appear to be three well-known American agricultural implements in use here. The method of handling the trade up to the present has been for a wholesale house at Cape Town to sell through country storekeepers to the farmers. The wholesale firms have their salesmen for selling to the country storekeepers, and also trained men to show the workings of the machines to farmers, if required. It is stated that one American plow company has six special representatives traveling in Natal and the Transvaal. These men were sent out by the company, it is stated, owing to their business decreasing in the hands of a local merchant. The representative of a large firm here handling such implements stated that the American maker is "stupid," in that he fails to assist in judicious advertising, sending electros, etc. The making of electros, or a satisfactory substitute, is very expensive in this country, and the merchants appreciate getting them free from the makers.

How best to handle the trade in agricultural implements seems a difficult question to answer at present, and those handling implements advise makers whose names might be new to this field to wait for better conditions of trade. This may be to some extent from selfish motives, but there is more or less good judgment in it. Unless there is some

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new mode of introducing the goods, the chances for a new make are not very good. The more prominent merchants who are likely to deal in implements are already representing some makes, and are bound down to them and so unable to handle another maker's goods. If a new firm were to go to the expense of opening a depot here and employ trained salesmen to visit agriculturists, explaining to them the advantages of their particular implements and also instructing them how to use them, it is practically certain some business would result, but I should hesitate to predict its volume. The life of farm implements in this country is short, as the farmers do not properly house them when not in use, and many times condemn the machine when it is themselves who are really to blame. Farm implements are sold at good profits by the merchants, and any maker of a good article could doubtless get some trade by cutting prices, if independent of the merchants.

STEAM APPLIANCES.

INVITING FIELD FOR MANUFACTURERS.

The British and South African Export Gazette publishes a lengthy article on the rapid development in progress in South Africa, describes the pressing demand for agricultural and other machinery required in a new country, and supplies information intended to be helpful to British manufacturers and exporters which has equal value to those of the United States. Manufacturers of farming machinery will be especially interested in the information supplied. The writer says:

Though steam cultivation has not yet been generally adopted by the agriculturists of South Africa, there has of late been a marked movement in this direction, and the tendency is one which calls for the close observation of both manufacturers and importers. Attention has been called to the matter by various authorities, who all point to the new spirit of enterprise springing up in the farming districts of the colonies. Much is being done, both officially and unofficially, to educate even the most conservative of colonial farmers to appreciate the value of up-to-date methods and appliances; while an important class of the more recent settlers on the land need little education of this kind, having carried a knowledge of such matters with them from Europe and America, and being, therefore, likely to do valuable missionary work by sheer force of example.

DEMAND FOR STEAM APPLIANCES.

There is probably no other country in the world where the natural conditions so imperatively call for the use of steam cultivating appliances. It has been stated by such an authority as Mr. W. A. Maclaren, M.I.M.E., that, having had many years' experience in breaking up land in various parts of the globe, he is of opinion that the South African veld is packed tighter, and is more difficult to break up, than any other land where agricultural operations are carried on. It is, no doubt, this feature which has stood in the way of South Africa's agricultural development in the past, and which will afford opportunity for the fullest display of the advantages of steam cultivation under such conditions.

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Shallow cultivation has but partially served its purpose hitherto, as is proved by the volume of colonial imports of produce and foodstuffs from oversea, which, in the natural course of events, should be grown locally, and when the South African farmer fully realizes the value and importance of deep plowing as a means of successful cropping, water and plant-food conservation, and increasing the fruitfulness of land to a remarkable degree, he is likely to become one of the largest customers in the world for a class of machinery which has hitherto suffered comparative neglect at his hands. In fact, instructive and striking experiments have already been made at the government farms and elsewhere in the various colonies, and the results obtained have been widely commented upon and may be regarded as largely responsible for the new interest in the subject.

DESCRIPTION OF MACHINES IN USE.

It may be of service to machinery importers if we briefly indicate the various methods of steam cultivation in vogue, with their chances of success under South African conditions. First in importance is the "double-engine" system, which is not only in most general use in the older countries of the world, but is regarded as the most suitable for the colonies. It is put into practice by means of two engines, fitted with winding gear and working up and down the opposite sides of a field, drawing the plow to and fro between them on a steel cable. Although the system involves the use of two engines, it does away with the need for stationary windlasses and other fixtures and provides a maximum of speed and power. The "single-engine" system is perhaps the best-known alternative, and necessitates the fitting of a special double-winding drum to the engine, which works an endless wire rope by means of anchors, snatch blocks, wire porters, etc.

Under both the single and double engine systems the engines are usually constructed on the lines of the ordinary portable or traction types, but specially strengthened to support the drums, which are removable when the engines are required for other work. Yet another system is that known as the "roundabout," a title which is descriptive of the tackle used. The engine drives a double-drum windlass mounted on wheels, which forms the apex of a triangle, with a self-moving anchor at each end of the base attached to claw anchors. This is a cheaper and less efficient system than the two previously described.

TYPES OF PLOWS REQUIRED.

In operating either of these systems much of course depends upon the type of plows used. A cheap and light implement, such as South African taste so frequently runs to for animal draft, is naturally not adapted to stand the wear and tear involved in speedy steam traction; and, in fact, efficiency is only attained by the use of large and powerful multiple plows, capable of breaking up forty or more acres per day. Disk plows have a wide vogue in America, and have found some favor in South Africa, but English opinion inclines to regard them as generally too lightly built for heavy and deep plowing, of too complicated mechanism, and uneven in their work, frequently riding over hard places. As a matter of fact the disk type has very marked merits under suitable conditions; but, on the whole, importers will find it necessary

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to confine their attention to the ordinary share type in combination for deep plowing by steam, especially where new land has to be broken up. In one important respect the more general adoption of steam cultivation in the colonies may be expected to benefit English makers, as it will probably lead to a demand for a heavier type of plow than that now in use, suitable for working by either steam traction or animal draft, according to the purchaser's requirements or convenience.

SEWING MACHINES.

AMERICAN POSSIBILITIES IN THE TRANSVAAL.

Consul John H. Snodgrass reports from Pretoria that since the war there has been an increased demand for sewing machines, chiefly of a cheap grade, which have been supplied on the monthly payment plan. He writes:

When one considers that machines to the amount of $149,080 were sold during the last six months of 1905, it furnishes some idea to the American manufacturer of the possibilities of South Africa under more propitious times. Before the period named above, no statistics are given, nor is the country of origin listed, but from interviews with dealers, both here and at Johannesburg, it appears that so far the American machines have secured but small foothold, the cheap makes of Germany being preferred. The Singer, thought always to be of American origin, manufactured in Scotland, is sold here and no marks upon it indicate that it was originally, at least, from the United States. From figures approximating the value of sewing machines imported in 1905, it is found that the sum of $258,260 was laid out for that purpose in the whole of British South Africa. Of that amount, the Transvaal spent $86,820, the Orange River Colony $29,160. The ports of entry indicate that shippers preferred the Cape Colony, the figures being as follows: Cape Colony $142,860, Natal $106,080, Delagoa $8,760, and Beira $440.

A dealer here, going over the various good points of the different makes, stated that the Boers or Colonials are partial to the German designs, because they are cheap and appear to fill the bill for their purposes as well as the higher-priced ones, the German makes selling from $10 for a hand machine to $35 for the best foot-power product, yet the exporters in Germany fail to supply the dealers with extra parts, and as a consequence when needles break or more serious injuries are found there is nothing with which to remedy the defect and the machine is more or less worthless. In the course of time a solicitor comes along and induces the owner to trade in the broken machine for a more expensive English make upon the monthly payment plan. American manufacturers who contemplate bidding for this trade should bear these facts in mind and keep their representatives well supplied with extra parts. The higher-priced articles are disposed of on terms at from $40 to $100, and a few at higher prices. The duty is 10 per cent ad valorem.

Nearly every dry-goods firm in the Transvaal, as well as many bicycle dealers, handle sewing machines, though the leading makes are represented by agents who give their entire attention to the line. I submit a list of dealers at Johannesburg, Pretoria, Barberton, and Middleburg, which can be secured from the Bureau of Manufactures.

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NO EMPLOYMENT.

MECHANICS LEAVE TRANSVAAL—INVESTMENT CHANCE.

Every mail brings inquiries to Consul Snodgrass from Americans as to the chances for employment in the Transvaal. This causes the consul to make the following statement:

These communications come from all classes, to which the usual reply has been "Stay away." I wish to emphasize by public print what has been stated in private missives, and to that end make a short review of the business depression on the Rand, at Johannesburg, the principal commercial center of South Africa, which will give American readers an insight into present conditions. A local authority recently quoted the mayor of Johannesburg as declaring, half humorously, that the town had been afflicted with hard times for the last eighteen years to his knowledge. Yet fortunes were being made, the city was growing by leaps and bounds, and the hard times of the town talk did not appear to affect the banking accounts. At the time this was said it was true in essence, if not strictly true by the letter. The market undoubtedly was bad, but a share market which is black edged for the speculator may coincide with healthy industries and flourishing trades. Unfortunately, Johannesburg is to-day laboring under more serious ills than a sagging market and a weeping 'change.

AN EXODUS OF WORKMEN.

The building trades, which for three years have been as prosperous here as in any portion of the world, are suffering from an aggravated slump. The depression may only be a temporary one, but it exists. The passing of the cloud of uncertainty which hangs over South Africa just now like a blight may mean the return of activity to the yards of the master builders and the return of regular subscriptions to the coffers of trade unions. In the meantime the masters are in the slough and the men are clearing out. Every boat train that leaves here now takes with it a number of skilled artisans, who have been earning a living here since the war. Some are returning home, more are seeking in New York and Buenos Ayres the prosperity which has temporarily taken leave of Johannesburg, and hundreds are tramping wearily the streets of Johannesburg and along the Reef, exhausting their savings and their boot leather in the fruitless quest for work. Not less than 200 bricklayers are unemployed in Johannesburg, and about as many more have left the town during the last couple of months. It must be remembered that the influx, which was considerable at one time, has been nonexistent for months. A prominent trade-unionist, who speaks with an intimate knowledge of the state of the trade, estimates that for sometime two bricklayers have been leaving the town for every one that has come in. With the carpenters the matter is even worse, and probably not fewer than 300 men are idle at the present time. In the carpentry trade the margin of men to employment has always been rather larger than in bricklaying, and now when something like a slump has set in the distress is correspondingly greater. A feature of the depression, which has more than a temporary influence, is that the best mechanics are leaving the town in alarming numbers.

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The men who would have been the best citizens of any new colony, skilled workmen, are finding that the Transvaal has no longer room for them. People talk about the excessive cost of skilled labor in Johannesburg, and incidentally they talk much nonsense. Considering the cost of living and other factors, wages are not high in Johannesburg. The position of the men is reflected in that of the masters. Firms which a year ago were employing hundreds of men are now employing half a dozen. The big firms are hanging on, and keeping their offices open on a very small turnover. There have been no collapses so far, in spite of the daily crop of rumors, but the public at large does not know the number of new firms which have started in a small way and made their exit through the insolvency court, breaking no one except themselves, but being quite effectively broken.

SUBSIDENCE OF GREAT BUILDING BOOM.

The records of the municipality bear out in figures what has been stated above. In November, 1905, $1,600,000 worth of new buildings were erected; in July, $1,534,500 worth; and the monthly average was over $1,000,000 all the year through. In January of this year the first decided decrease took place, and the valuation of new buildings sank to $855,000. In February even that reduced figure was cut in two, and plans for only $455,000 worth of new premises were passed by the works committee. It is noteworthy that the number of buildings did not diminish. Thanks to the operations of the building societies, a great many people are erecting residences in the outlying townships or replacing the tin shanties of the early days by the brick houses, which are more suitable to a settled community. But the building of extensive business premises has nearly ceased, and two or three men are working on cottages where formerly gangs of a hundred were working on large blocks.

Inquiry into the causes of the slump always elicits the same reply, "The town is overbuilt." Firms carry on from month to month by a sort of commercial miracle. Take one instance: Nine by three timber is being sold to-day at 13 cents a foot, and it costs to land on the most favorable terms 13⅛ cents. The enterprising merchant loses an eighth of a cent on every foot he sells. The real expansion of Johannesburg, sitting on the crest of an unexhausted gold reef, is only beginning, and even to-day the town would not be overbuilt by a single room if the mining industry were expanding as everyone expected it would expand after the war had ceased and free development was assumed to be a certainty. But with the mainspring of the country's industry hung up, every subsidiary industry at once feels the pinch. The mines are in suspense, and every livelihood in the country will suffer while the foundation of the country's existence is insecure. Free expansion of the mining industry would quickly absorb the temporary overbuilding that now cripples the trade of the city and country; but if mining can not be developed on legitimate lines then the Transvaal is in the position of having cut its cloth too large for its coat.

Until the present political muddle is cleared up and the country settles down to a normal existence American workmen will do well to remain away. The investor, however, will perhaps never again find stocks so low or the opportunities so great in acquiring mining leases.

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CHINESE COOLIES.

It was recently announced in the British Parliament by a member of the cabinet that the notice to the Chinese coolies in South Africa of the conditions by which they may obtain relief from their contracts and return to China at Imperial expense would be continued in force as a safety valve against cruelty or oppression. It was further announced that so soon as a constitution conferring responsible government upon the Transvaal has issued, under the authority of the Crown, a date will be fixed when the existing Chinese labor ordinances will be revoked; and, unless before that date expires the Transvaal legislative assembly reenacts a new ordinance to which His Majesty's Government can give its assent, the whole system of Chinese indentured labor in South Africa will cease and determine. It is this uncertain state regarding the South African mines that has much to do with the stagnation in that country.

IMPORTS OF CERAMIC WARE.

Consul-General Guenther, of Frankfort, supplies the statement of a German publication as follows:

In the year 1905 the British colonies of South Africa imported earthen and china ware to the value of $781,375, in the supply of which Great Britain participated with 74 per cent; Germany, 16.1 per cent; Belgium, 2.8 per cent; France, 1.7 per cent; United States furnishing only 0.7 per cent. The ceramic ware imported consists chiefly of articles of earthenware and cheap China dinner and tea sets, toilet sets, jugs, and mugs. Our china and earthenware manufacturers of New Jersey and southeastern Ohio can easily compete with those of Staffordshire, England, and of Thuringia, Germany. The poor showing which our American manufacturers make in the export of ceramic ware to South Africa is to be attributed to a lack of enterprise and want of knowledge in foreign trade conditions. In matters of foreign trade we should emulate German exporters.

MAURITIUS.

FURNITURE IS NEEDED.

AMERICAN FACTORY PRODUCTS FOR THE ISLAND.

Consul Theodosius Botkin makes the following request and suggestions from Port Louis, the capital of the island of Mauritius:

I request that manufacturers of household, school, and office furniture mail to me their descriptive catalogues and price lists of their wares, so that I may be prepared to advance American furniture trade in this district. There is no descriptive furniture catalogue in this office, and an urgent local inquiry has been made for one and for prices, f. o. b. There is very little demand for upholstered goods, as this is a warm, moist climate.

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I believe that if an energetic salesman could be found or sent here a large amount of office furniture, as well as household, could be sold if prices were made to suit the trade. The only American furniture in this market is some cheaply made stuff purchased from a firm in New York, who write to a local dealer that they handle the goods of four American factories and of a Canadian factory, and they strongly recommend that future orders be given for the Canadian goods in preference. They also demand, in addition to their commission from the manufacturers, a commission of 2½ per cent from the purchaser. It is understood, of course, that the jobber is not in business for his health; but when he is paid a commission to sell goods for the manufacturer, or makes his profit on the goods sold, I would respectfully suggest that his exaction of a like commission from the purchaser is carrying that "business" too far. And when he informs his foreign customer that interest at 6 per cent will be charged on the amount of the purchase for the period elapsing between the date of shipment and the arrival of the remittance in New York, an utter disregard is given for foreign trade.

REMITTANCES BY LONDON EXCHANGE.

Another question that strongly concerns these local dealers relates to the time and manner of payment. In conversation with one of them he said that he objected to being compelled to send a draft with any order he might give, but preferred thirty and sixty days after arrival of the goods and could furnish good banking assurance that the drafts upon him would be honored. It seems that the banks here sell no American exchange and all transactions would have to be carried through London, unless our American bankers will place themselves in touch with the banks here which are safe and strong and have London backing.

If Americans are to build up and hold a trade in this land our flimsy stuff and wares must be kept at home and only serviceable goods sent here. In this connection I again urge the establishment of an American supply store here, for its presence and usefulness would effectively remedy such evils as the above.

SUGAR TRADE OF ISLAND.

Consul Botkin also reports:

Amount of sugar received in Port Louis for the period August 1, 1905, to March 31, 1906, was 2,448,334 bags, against 1,853,851 bags during the corresponding eight months of the year previous. The exports of the 1905–6 crop totaled 158,601 tons. Of this over 60 per cent went to India, 22 per cent to South Africa, while Canada and Australia each took somewhat over 3 per cent, and Great Britain 2⅛ per cent of the shipments. The prospects for the new crop are excellent.

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NORTH AFRICA.

EGYPT'S CHIEF PRODUCTS.

COTTON LESS SATISFACTORY AND SUGAR DISAPPEARING.

Consul-General L. M. Iddings sends from Cairo the following report on cotton and sugar in Egypt:

Of recent years the area of land under cotton cultivation in Egypt has been steadily increasing, yet the total of the crop has remained stationary, or has even diminished. The total crop in 1904–5 was 6,352,000 kantars, a kantar being 99.05 pounds. This was less than the crop of the preceding years, as follows: In 1903–4, 6,509,000 kantars; 1901–2, 6,372,000 kantars; 1899–1900, 6,510,000 kantars; and 1897–98, 6,543,000 kantars.

The quality of the cotton also tends to become less satisfactory. It has been stated that this deterioration is largely due to the building of the Assouan reservoir. It is thought by some that this work, by arresting the velocity of the current of the Nile, causes the sediment to deposit on the river bed, and thus deprives the water of its fertilizing properties. Sir William Garstin, English adviser in the department of public works, says that only the surplus water is stored, the ordinary supply passing down the river with but little diminution of sediment. During the period of storing the water contains practically no sediment. When the cotton sowings begin, in March, the water in the river is perfectly clear. This has always been the case with the Nile, and the reservoir has in no way altered the former conditions of the river. It was the Assouan dam which saved the country from greater losses last year when the stream was exceedingly low. Other causes of harm, which are more probable, are insect pests, principally the cotton worm, which it is hoped to exterminate this summer; the effect of the rotations, overwatering, and overcropping. Great efforts are making to overcome all these evils.

IMPROVING THE COTTON CROP.

The question of the quality of cotton seed has received the close attention of the Egyptian Agricultural Society. A considerable area of land was set apart for the production of as pure a strain of seed as possible, the seed for the sowing of which had been previously subjected to a system of hand picking. During the growth of the crop all plants not true to the variety which it was intended to produce were removed. About 12,500 bushels of seed were produced in 1905, which were distributed to well-known growers in suitable districts. In this manner some 10,000 acres of land will be sown with this seed during the present season. The crop resulting from this area will provide seed for distribution for at least 100,000 acres in the following year. It is, however, almost certain that this measure alone will not suffice, and that results of further experiments must be awaited. Owing to the high price of cereals and the loss which cotton cultivators incurred last season, the evil of overcropping may to a certain extent disappear. Moreover, the price of cotton may fall, which would not in some respects be an unmixed evil for Egypt, because the temptation to push the cultivation of this staple too far would be greatly diminished.

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CESSATION OF SUGAR-CANE RAISING.

Until the year 1881 there were no sugar-refining factories in Egypt. The Daira Sanieh mills crushed the sugar cane and extracted the raw sugar, which was either consumed locally in that condition or exported and refined abroad. In 1881 a refining factory was erected at Hawamdieh by the Société de la Raffinérie, and eleven years later, in 1892, another company, called the Société des Sucréries de la Haute-Egypte, built a second factory at Sheikh Fadl. These two companies amalgamated in 1897 under the title of the Société Générale des Sucréries et de la Raffinérie d'Egypte, and shortly afterwards constructed the large refinery at Nag Hamadi. The company had by this time extended its system to crushing the cane as well as refining the raw sugar.

In 1902 a financial syndicate was formed under the title of the Daira Sugar Corporation, which controlled all the sugar business of Egypt. In 1905 it was engulfed in the failure of MM. Henry Say et Cie. and was ruined. After long litigation reorganization is now in progress, but no one can tell how it will succeed. The opinion prevails that sugar will not be much raised nor manufactured in Egypt hereafter, but that the land will be cultivated for cotton. The natives will raise a little cane near their houses, but only for their own consumption.

MINERAL WEALTH.

PROSPECTING FOR GOLD, PETROLEUM, AND COAL.

Much interest is now taken in Egypt in the possibility of developing the country's resources in gold, coal, and petroleum. Investigations carried on by the Government in 1904 and in 1905 in the eastern desert, between the Nile and the Red Sea, starting in near the town of Edfou, are encouraging, not only as to old mines but as to new ones. The Government has established a department of mines and formulated police regulations.

At the northernmost point of the mineral fields is the concession of the Cairo syndicate, the Sinai, who are prospecting in the northern half of the Sinai peninsula. They report the discovery of copper and of a thin seam of carboniferous matter containing a small vein of coal. The Cairo syndicate, the Egypt, while prospecting for coal and other minerals to the south of latitude 28° and to the north of the Egyptian Mines Exploration Company, has found extensive ancient workings for gold in the neighborhood of Jebel Zeit, about 12 miles from the Red Sea shore. This is the most northern point at which ancient gold mines have as yet been discovered. The concession of the Northwestern Exploration Company lies on the west side of the river. Deposits of phosphates and nitrates are reported to have been found by them. The groups of the Egyptian Mining Exploration Company are examining an area of about 10,000 square miles south of the Cairo syndicate's concession. They are at present only working three mines east of Keneh.

PRACTICAL OPERATIONS.

The most important feature of this group is the Um-Rus Gold Mining Company's mine, which lies in the southeast corner of the concession. There a large plant has been erected. The main shaft is

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down to something over 550 feet. The present rate of output varies between $6,000 and $8,000 per month. To the south of the lands of this group E. W. Streeter has a concession to work the emerald mines and also a prospecting license for other minerals, which, however, will expire shortly. Ancient workings of gold, lead, copper, iron, emeralds, and sulphur are known to exist there. Practically all the mines are within 30 miles of the Red Sea shore.

To the west of this concession the Egypt and Soudan Mining Syndicate have four prospecting areas of 25 square miles each. The work in two places has given unsatisfactory results. The Egyptian Options (Limited) are prospecting for gold as well as other minerals. To the east of their property lies the Um-Garaiart mine, from which gold to the value of about $150,000 was extracted during 1905.

The Corporation of Western Egypt, who have a concession to the west of the Nile, have started preliminary works of exploration and are constructing a short railway. Deposits of alum phosphites and ochers are said to exist there. A find is announced of gold in a lower bed of phosphate rock which is heavily pyritic, and contains yellow metal valued from a few cents to as much as $1.90 per ton. It is possible that this deposit may be only local, but it might also lead to a more important discovery. The total returns from the Nile Valley and the Um-Rus gold mining companies have amounted to $200,000 so far.

LABORERS DECLINE WORK IN SOME CASES.

Complaints as to shortage of labor have been heard, but the department of mines are attempting to make arrangements with the various companies to assist them in getting the men they may require. Investigations also tend to show that this scarcity of labor is more a result of the personality of the employers than the actual lack of people, because in the camps where the workers are fairly treated and some interest is taken in their welfare no shortages have occurred.

Great interest is attached to the possibility of finding coal and petroleum. So far no really serious investigations have been made, and though there is every sign of the existence of petroleum on the Red Sea shore in the neighborhood of Jebel Zeit, shafts must be sunk and a thorough work of investigation be carried on before it can be known that such deposits have commercial value. A number of prospectors have applied for licenses recently, especially for petroleum.

GENERAL DEVELOPMENT.

GOOD OUTLOOK FOR FUTURE TRADE AND AGRICULTURE.

Egypt makes a good showing in the way of development in Lord Cromer's report for 1905.

The imports of merchandise into Egypt, excluding tobacco, tombac, and cigars, for the year 1905, aggregated about $104,000,000, an increase over the previous year of about $5,000,000. The imports from America, as given in Lord Cromer's report, aggregated in value about $2,400,000, an increase over 1904 of nearly $1,000,000. The exports from Egypt were nearly as large as the imports, but there was a decline

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in 1905 of over $2,000,000 from 1904. Cigarettes, however, were excluded from that consideration. The United Kingdom took 53 per cent of the exports, consisting principally of raw cotton, cotton seed, and sugar.

With regard to Egyptian railways, the report shows that the net earnings for 1905 were considerably over $1,000,000 in excess of those for 1902, which represents about 14 per cent on the capital laid out during the four years, the total of which amounted to about $9,000,000. The number of passengers carried by the railways in 1905 was 20,000,000, as compared with 15,000,000 in 1903.

The progress of Egypt's commercial development in the last twenty years has been most marked. The cotton crop alone in that time has more than doubled. In spite of the large reductions of taxation the revenue last year was the largest ever collected in one year. The great wealth of Egypt lies in her agricultural resources—cotton, oil seeds, sugar, and other crops. These, in turn, depend upon the Nile flood. With the Nile regulated and under control by the immense system of reservoirs and dams, with a fellaheen freed from excessive taxation, and with a network of light railways, rendering the produce of the country accessible to foreign markets, the prospect of Egypt is placed on a more solid basis than in the past.

IMPORTS OF GLASSWARE.

The Bulletin of the French Chamber of Commerce at Alexandria, Egypt, reports a rapid increase in the imports into that country of glassware. The value of that imported in 1905 amounted to $700,000, as compared with $200,000 in 1892. This increase is said to be due to the influx of Europeans into the country, and also to the general improvement of conditions of life among the natives, who were formerly contented with earthenware table utensils, but are now large purchasers of glassware. The extensive adoption of oil for lighting purposes has likewise given rise to a demand for lamp glasses, which come from Austria and Germany. Lemonade bottles, with marble stoppers, are imported largely from the United Kingdom, and are delivered in Alexandria, Egypt, at from $4.50 to $5 a gross. Glass bracelets are largely worn by the native women. One-fourth of the glass lamps imported come from Germany, the remainder mainly from Bohemia.

MOROCCO.

LACK OF KNOWLEDGE OF AMERICAN BUSINESS METHODS.

Consul-General Hoffman Philip, in response to a New York inquiry, writes as follows from Tangier concerning business houses in Morocco purchasing American goods:

In this country the advantages of certain American products over those of Europe are most imperfectly understood. This arises from the proximity of Europe and the absence of any mercantile firms having important American interests. A considerable amount of American produce is imported into Morocco, but indirectly and most frequently through European middlemen.

There is also a great lack of knowledge on the part of European and

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other merchants doing business here of American business methods, exact prices, expenses of transportation, quality of products, terms of payment, etc. With sources of supply nearer at hand in Europe, it can easily be appreciated that the intending importer in this country must know first the exact quality and nature of the goods to be ordered. On this score too much stress can not be laid upon the importance in this market of introducing precisely the right article and that only. There should also be made the most exact estimate possible under the circumstances of the cost of said imports f. o. b. at Tangier or other Moroccan port. I append a list of general importers, some of whom receive American products, and will only add that it remains to be found out what would be the most desirable and profitable articles for importation into Morocco. [The names will be furnished those applying to the Bureau of Manufactures.]

SEED CROPS ABUNDANT.

Consul Philip also reports that the general outlook for the various seed crops in Morocco for the coming season is excellent, and that the rainfall has been abundant in all districts. He says:

In respect to the probable yields of canary, coriander, and fenugreek seeds, inquiries incline me to believe that they will be considerable and equal to the demand of average years. The drought of last season will to a certain extent preclude this year's yield from being exceptionally large, owing to the resulting poverty among the agriculturists and the special attention devoted to crops of cereals, etc. There has also been considerable damage by locusts to the crops in the extreme southerly districts. However, I see no reason to suppose that this year's seed crop will not be a liberal one, and I should advise the particular attention of our business houses to Morocco as an exceptionally good source of supply in this direction and one capable of great development.

BUILDING MATERIALS IN DEMAND.

The attention of manufacturers is invited to reports from Tangier that there is a large and increasing demand in that part of Morocco for cement and building materials of all descriptions. The reason of the increase in the importation last year of cement, bricks, tiles, hardware, and furniture is to be found in the great stimulus experienced in the building trade. The right of foreigners to acquire land having been confirmed by the powers represented at the Algeciras conference, the demand for building materials of all descriptions, as well as for furniture, will, it is said, increase considerably. The furniture required is of a cheap and light description. There is a demand also for stationery and for note and account books. There is sure to be a great demand for tools of all sorts and descriptions, and all the many conveniences required for a modern town will be in demand. The import of British hardware fell 13 per cent during the year, the British percentage being absorbed by Belgium and France, from which two countries steel and iron girders and ironmongery of all descriptions were imported in large quantities.

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ALGERIA.

CHANCE FOR AMERICAN COMMERCIAL TRAVELERS.

Consul James Johnston writes from Algiers that an American traveler knowing French well would have a very fair chance of working up a business in Algeria in such trades as agricultural implements, tools, oil engines, pumps, and perhaps windmills. The consul continues:

Merchants here in these lines are very willing to do business direct with the United States, and in fact would prefer doing so. It is by personal contact that a bright man would learn what their wants are and what are the difficulties in the way of direct trade. A commercial traveler simply passing through the country requires no license, but if making a prolonged stay would need a license as "representant de commerce," costing 40 francs (franc = 19.3 cents) per annum. There is no discrimination against Americans as compared with other nationalities, nor have citizens any advantages over foreigners in this respect. In business of the class referred to the merchants are, generally speaking, solvent. Of course each case would have to be considered separately, and reliable information can be had as to most of them.

The mode of living here is quite different from the American. For single men the custom is to take a furnished room, which can be had at from 50 to 60 francs a month for a good room, and to board in a restaurant. For déjeuner and dinner, consisting of several dishes at each, with ordinary wine included, the usual charge varies from 75 to 90 francs a month. Needless to say that any American traveler calling at this consulate will have all the information and assistance that it is in my power to give him.

ABYSSINIA.

GROWING MARKET FOR COTTON CLOTH.

A German consular report says that cotton represents half the total imports into Abyssinia, and adds:

The natives use hardly any other kind of cloth and have it bleached or unbleached, according to their means. Rough unbleached cotton cloth, the article which enjoys the largest demand, is sold locally under the name of "Abu-djedid." Owing to the low price at which they offer their goods the American manufacturers are practically controlling this trade. They make their shipments via Aden, and the annual business is estimated at over 20 million yards of cloth, representing a total value of about $1,094,000. The leading markets are Djibuti, Harrar, and Massouah. The unbleached goods arrive in pieces of 30 yards in length and one in width, the weight of each piece rarely exceeding about 10 pounds. There is a paper wrapper round every piece and 25 pieces go to the bale, which is carefully packed and protected by canvas. Every piece of cloth has the trade-mark printed at the end and the natives, as a rule, have their own particular fancies in this respect. The brands most in demand are the "Gemal," "Lion," "Menelik," "Ferros," "D," and "Balatur," which average in price about $2.50 to $3 a piece.

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WEST AFRICA.

REPUBLIC OF LIBERIA.

ENCOURAGING TRADE OUTLOOK—AMERICA'S POOR STANDING.

Consul-General Lyon, of Monrovia, reports upon the trade outlook in the section of Liberia comprised in the county of Grand Bassa, which he visited recently, as follows:—

The trade outlook of this section impressed me with an element of improvement. The piassava industry, of which the county is the commercial center, and which had suffered much by the large export tax imposed by the legislature for the support of Liberia College, the national institution, has taken on new life, caused by the reduction of this same tax by the last legislature. This together with a slight rise in the price of coffee, as well as other local conditions, have furnished cause for hope among producers in this section of the Republic. There is noticed also from the statistical report a decided increase in the volume of trade with England and Germany. With the withdrawal of American ships from these waters came also the loss of commercial prestige. This could not be otherwise when the proximity of England and Germany to Liberia is taken into account, together with the larger fact that they are both territorially interested in Africa, and therefore under commercial obligation to cater to the wants of the indigenous population.

IMMIGRATION FROM AMERICA.

Mr. Lyon furnishes information which will be the means of correcting the misinformation that obtains in regard to immigration of colored people into the African Republic. There seems to be an understanding in this country among leading colored men interested in emigration, that the Liberian Government has made provision for transportation for bona fide immigrants to the hinterland of that country. Under that belief about 500 persons collected in the West preparatory to proceeding to Liberia, all of whom were represented to be able to sustain themselves for one year after arrival. Fortunately before any movement took place Mr. Francis A. Warren, of Detroit, Mich., wrote to Minister Lyon for information. In compliance with a communication from the minister, the secretary of state for Liberia explained that the Liberian Government was not at present able to assist prospective immigrants. The secretary also furnished a copy of the Liberian law relating to immigration, in which it is provided that immigrants coming into Liberia must take the oath of allegiance to the Republic and adjure the State or country from which they come. Having done that they may receive aid from the Government. Immigrant agents are required to keep a record of all expenditures on this account and to make quarterly returns to the secretary of the treasury. Immigrants remaining in the Republic for a period of five years are not required to return the assistance received from the Government, but any leaving before the expiration of five years must return all benefits received from the Government, and failure to do so renders the delinquent liable to suit for recovery.

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KONGO.

AMERICA NOT IN THE TRADE.

Consul-General Richard Guenther makes a report from Frankfort that the foreign trade of the Kongo Free State (Africa) in 1905 amounted to 94,427,000 francs (franc = 19.3 cents), consisting of 25,886,000 francs of imports and the balance representing products exported from Kongo.

Of the imports, 13,889,000 francs in value came from Belgium, 2,721,000 francs from England. France, Germany, and Holland supplied goods from 700,000 to 800,000 francs value each. Other countries supplied in amounts ranging from 105,000 to 495,000 francs in value, but even among these smaller supply sources the United States is not mentioned, leading to the inference that no goods are imported from the United States, or the amount from there, if any, is too small to be worth mentioning. German official statistics quote Germany's imports from the Kongo Free State in 1905 at 13,419,000 francs in value, 12,000,000 of which were for raw caoutchouc received from that country.

MADERIA ISLANDS.

MARKET FOR AMERICAN SEEDS.

Consul Maxwell Blake writes from Funchal that during the first half of this year the heavy rains and unusual cold weather destroyed certain Madeira Island crops and seriously threatened the maturity of others.

The low temperature resisted the efforts of the seeds even as late as May, a month when generally the soil is very warm. The potato crop was practically destroyed, beans also rotted in the soil, and the sweet potato, perhaps the most essential article of food in the diet of the peasant, has been very greatly damaged. All seeds for next year's crops will, as a consequence, be short of the demand and thus very much dearer. Here is offered a splendid opportunity for the market of American seeds, as it is generally admitted that the seeds of our dryer climate have never failed of good results whenever they have been used in Madeira. Seeds are admitted duty free. There is, however, a small octroi tax. [The Funchal dealers in seeds are named by the consul, and the names can be secured from the Bureau of Manufactures. Correspondence with them should be in Portuguese.]

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ASIA.

CHINESE EMPIRE.

PEKING AGRICULTURAL EXPERIMENTS.

MODERN MOVEMENT FOR IMPROVEMENT BY BOARD OF COMMERCE.

Consul-General James W. Ragsdale reports from Tientsin that the native board of commerce at Peking, China, has submitted a memorial to the Chinese Government asking permission to use the land of an Imperial garden situated along the road leading to the Summer Palace as a field for agricultural experiments.

It is pointed out that agriculture is one of the primary principles to be studied in building up national prosperity. Farming is closely connected with the foundation of a nation, and the source from which the Government and the people draw their support. Agriculture receives great attention in all countries; the United States builds her nation on agriculture; her wealth is first in the list of the world. Japan, since the adoption of modern civilization, has shown great improvement in her agriculture, and is reaping the benefit of increased produce and industrial prosperity. There are in Japan thousands of ching (a ching=100 mou, while 1 English acre equals 6 Chinese mou) of land allotted for the purpose of agricultural experiments.

China is a country noted for agricultural pursuits, but as the farmers are lacking in knowledge no improvement has been made. It is partly due to the want of irrigation and partly to the rude implements used. Permission was obtained by the board in the twenty-ninth year (1905) for the encouragement of agriculture, but up to the present only a few provinces have directed their attention to this matter. With the exception of the few experimental fields and agricultural schools established in Chihli, Shantung, Shansi, Honan, and Fukien the other provinces have sent no reports on the subject. Peking being the capital of the Empire, an experimental field is necessary. The Loshan garden, which is situated outside of the Hsichih Gate of Peking with an area of 1,000 mou, is found suitable for such a purpose, and although it is located on the Imperial road, when the land is turned to account and fully cultivated it will be a pleasure to their majesties. The above was approved by Imperial Rescript on April 15, 1906.

WALL PAPERS USED.

GAY COLORS AND PATTERNS WITH FRIEZES WANTED.

The use of colored papers for house decoration, which was scarcely known in China until quite recently, is now becoming general.

It is believed that these papers would find a good opening in the country, because, in certain towns like Shanghai, Hankow, and Tient-

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sin, they would be used, not only in the houses built for Europeans, but also in those of the Chinese of the wealthy class who follow European customs and habits. The papers used in China are very varied in colors, qualities, patterns, and prices; it is therefore advisable to send the greatest possible variety of samples, and papers representing landscapes, scenes, and pictures of Teniers, tapestry, etc., would probably sell best. The frieze, which is placed immediately below the cornice, is generally of a greater depth than that common in European countries, and often measures as much as 15 or 16 inches. The best papers represent in these friezes landscapes, seascapes, borders of flowers, garlands, etc. The ceilings of houses are also covered with paper with a simple pattern on a light-colored ground. Manufacturers are recommended to send varied and detailed catalogues of papers for walls, ceilings, friezes, and borders, with samples at least 15 inches square. At the same time it is a good plan to send with the catalogues, which should be in duplicate, a small consignment of paper sufficient in quantity to decorate two or three rooms of ordinary dimensions, i. e., 16 by 20 feet.

FOOD COMMODITIES.

USE OF RICE AND WHEAT FLOUR INCREASING.

The following report has been received from Consul-General Rodgers, of Shanghai, in regard to the food supplies in his district:

I have the honor to report that within the last month the price of rice has risen in Shanghai from about $4.80 Mexican to $7.20 per picul (133 pounds), and that in all the region throughout the Yangtze Valley there has been a corresponding increase in the price of the staple article of food. It is stated that the great floods in Hunan and other great rice-growing provinces are responsible for the advance in price, but it is also known that dealers, taking advantage of the prospective scarcity, have seen fit to add an abnormal profit. The natural result has been food riots in many places.

In connection with the Chinese food question it may be stated that every evidence points to the fact that the people as a whole—not the upper classes alone, but the population generally—are yearly consuming greater quantities of foreign food. The use of wheat flour, according to foreigners of long residence, has increased enormously in this generation, and there is a certainty of much greater consumption.

TIBET.

COMMERCE FOLLOWS THE BRITISH FLAG.

The new British-Tibetan treaty has stimulated the completion of an enterprise commenced more than half a century ago, but subsequently abandoned when the Lamas broke off all relations with the Indian government.

The London Times learns from India that steps are being taken to finish the construction of the Hindustan and Tibet road, and supply a means of communication for commerce with Tibet, Lhasa, and western China. The idea of the governor-general was to build a good and sub-

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stantial highway up to the Tibetan frontier at Shipki. Commerce with Tibet, which consisted chiefly in wool, borax, sulphur, charras, tea, and silk, had hitherto been mainly in the hands of the Russians, and many travelers pressed for the development of trade between India and Tibet, so as to enable Great Britain to compete in so promising a market.

The present road starts from Simla and passes through the Mahasu tunnel and joins the valley of Sutlej just beyond Kotghur. Rampur, 85 miles from Simla, is an important trade mart, traffic being carried on with Tibet, Ladak, and Kulu, the principal article being "pashm" or fine shawl wool of the Tibetan goat. In November there appears to be one continuous flock of millions of sheep and goats extending from Rampur to Pangi. At Wangtu, where the Sutlej is crossed by a bridge, a road branches off, and, turning northwest into Spiti, leads by way of Bara Lacha or the Parang La pass toward Leh and Yarkand.

A few miles beyond Urni one of the great wonders of India comes into view, the road having been here blasted through the Rogi cliffs for a distance of 4 miles at an elevation of 10,000 feet above the sea level. In one part there is a perpendicular drop of 1,500 feet with a further steep descent of 2,500 feet to the Sutlej. It has been described as one of the wonders of the world in road making. Ten miles before reaching Khub a great cantilever bridge was recently constructed across the Sutlej. Mr. Hart, of the forest bureau, has now taken in hand the improvement of the remaining section of the road from Khub to Shipki. Formerly Shipki, the most westerly village of Tibet, was a most jealously guarded frontier post, but now that the treaty is in force we may assume that trade from Rampur and adjacent hill States to Gartok, the commercial mart of western Tibet, will experience no obstacles.

The latest news to hand is that the assistant commissioner at Kulu is proceeding to Gartok during the present month to inquire into trade matters. Under the agreement with China regarding Tibet the right to connect the trade marts with the Indian telegraph system has been recognized, so it may fairly be said that the opening up of trade between the two countries in this hitherto unexploited region commences under very encouraging auspices.

MANCHURIA.

THE BUSINESS DEPRESSION.

SERIOUS INTERFERENCE OF TRADE MOVEMENTS AND TRASPORTATION.

Consul-General Thomas Sammons, of Newchwang, reports that the anticipated diversion of a part of the business heretofore centering at Newchwang to Vladivostok and Dalny (Tairen), heretofore pointed out, has been even more marked than the most apprehensive contemplated. Mr. Sammons continues:

The result was a decided depression in business during April and May, coupled with a number of suspensions or failures among the native bankers. American cotton goods and kerosene oil suffered a

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severe slump, and early in the latter month the situation became disquieting as a rule and positively alarming to the more seriously depressed interests. The predictions of established Chinese business concerns that 1906 would not compare well with 1905 in Newchwang shipping and trade are therefore proving, at least for the time being, to have been quite well founded.

There are a variety of surface reasons now being offered to show why 1906 is to be commercially unsatisfactory, most of these reasons, as a rule, being traceable to the late war or to conditions growing therefrom that have been more or less misleading to the average trader, both native and foreign. With the steady demand for beans and bean products (the chief harvest of Manchuria) in Japan and the resulting advances in prices, it has been assumed that the farmers were in possession of more money than ever before and that the millions of Russian rubles and Japanese war notes left by the armies during the late war, together with a "hungry market" resulting from the recent armed conflict having interrupted the filling of orders for goods, would create an unprecedented demand for large stocks. These large stocks were therefore purchased, as heretofore reported, until all available warehouses were overcrowded.

DIFFICULT INTERIOR OPERATIONS—AMERICAN COTTON GOODS AFFECTED.

With the opening of the port of Newchwang for the season of 1906, after being icebound for three months, business was found to be sluggish, and it soon developed that shipments made to the interior did not reach the consumer promptly. The passage of goods between the outposts of the Japanese and Russian zones of military occupation was unsatisfactory and was accomplished only at a great risk from robbers and great expense in cart hire. Therefore the temporary relief to a congested commercial condition at Newchwang was followed by an abnormal state of affairs in the interior.

The Newchwang merchants complained that 3,500,000 taels (aggregating approximately $2,450,000 gold) were practically withdrawn from the local market by being tied up in goods advanced to the interior districts. Money grew tight, and Shanghai returned drafts for large amounts. The money tied up in the interior was, roughly estimated, the aggregate due elsewhere to meet unsettled accounts. Beans and bean products did not arrive in the usual way from the interior, and practically all that did reach the port were handled by Japanese interests. Therefore the export trade, generally speaking, was even more unsatisfactory early in the season than the import business.

The Shanghai American cotton-goods interests, which have built up an extensive trade in Manchuria, almost wholly through the port of Newchwang, aggregating in 1905 upward of $9,000,000 gold, sent agents to the centers of trade depression with a view to ascertaining and removing, if possible, the causes that tended to hamper sales. They found a large quantity of native, but very little American, cotton goods, that had been forwarded via Shanghai, were being shipped inland, together with considerable Japanese cotton yarn, some of which had arrived via Dalny (Tairen) before the port of Newchwang opened. Flour, handled via Vladivostok and Dalny, has also been shipped to Manchuria this season in large quantities. There are, however, no

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available records of the exact or approximate amount. A stimulated demand for Italian cotton and woolen cloth, dyed in imitation of Chinese satin, was noted, as well as a tendency, on the part of recently established Newchwang commission houses, to order American cotton goods direct and not via Shanghai.

In addition to the above conditions there was observed another disquieting trade symptom resulting from the efforts, mainly as exerted through the Japanese military administration, to reestablish and readjust local banking methods which are based on an intricate exchange and bank paper transfer system. This system has been disarranged during wars and uprisings since the Chino-Japanese war, or for a period of over ten years. The local native bankers claim, as the result of prevailing conditions, to have suffered heavy losses variously estimated as being between $2,000,000 and $3,000,000 gold. Such estimates, however, are not to be considered, even approximately, accurate.

BANK FAILURES—CHANGES OF NATIVE MERCHANTS.

A number of Chinese banks have either suspended or failed, notwithstanding it is the policy of the native bankers to assist in tiding over the reverses of their fellow-townsmen. In addition to this policy, the efforts of the Japanese military administration to prevent further bank failures by urging mutual cooperation were deemed helpful and timely, although not entirely successful. While the market steadied and temporarily revived somewhat, the diagnosis of local merchants, as well as Shanghai and other outside expert opinion, indicated the presence of a complication of commercially abnormal conditions that will not be fully removed until transportation facilities throughout Manchuria are readjusted, and import and export duties are imposed and paid on terms of equality throughout the vast area that has been the theater of threatened and actual warfare and military occupation by Japan and Russia for a number of years.

When many of the native merchants from the northern districts of Manchuria, who have for years purchased their supplies at Newchwang, learned of the conditions outlined above, they deserted, at least temporarily, their customary business connections and placed their orders via Vladivostok. Goods entering Manchuria, both via Japanese port of Dalny (Tairén) and the Russian port of Vladivostok, escape, as far as can be reliably ascertained, the usual customs duties imposed and collected elsewhere in China and at Newchwang. This has been the cause of numerous complaints among shippers, the more patient and conservative of whom accept the irregularity of the situation as the to-be-expected conditions under the peculiar circumstances existing in Manchuria and following a great war waged between two powers on the territory of a third.

READJUSTMENT OF TRANSPORTATION.

In the matter of railroad freight rates, both in northern Manchuria, under Russian management, and in southern Manchuria, under Japanese control, interested merchants allege discriminations that are highly inconsistent with the spirit of the law as usually applied to common carriers. Merchants report the rates on the Russian line, north from Kuanchengtze to Harbin, as being excessive and manifestly calculated

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to discourage shipments from southern Manchuria into the rich provinces of northern Manchuria. These merchants also complain that the rates on the Japanese line from Dalny (Tairen) to Mukden and other points are less than from Newchwang to the same points. The rates on the Japanese line are, it is announced, to be reduced materially.

Still another unprecedented condition now manifested throughout Manchuria may be termed the period of transition, which marks the final departure from the ancient method of transporting goods inland by the Chinese two-wheeled cart of the style in use prior to the Christian era and the readjustment necessary to accommodate modern railroad traffic methods. Prior to the late war the Russians did not have a satisfactory opportunity to demonstrate the practical usefulness of the Chinese Eastern Railway. Now, however, both Japan and Russia seem about to utilize their railway properties as freight carriers to the greatest possible extent in the commercial exploitation of the sections of Manchuria in which they have extensive interests. The carts will meet the freight at the large distributing centers and the river junks will continue to transport goods to points not conveniently accessible by rail. Already there is some rivalry between rail and junk traffic, partially growing out of the necessity of lowering masts in passing the railroad bridge recently built by the Japanese between Mukden and Hsinmintun.

PURCHASE OF SCHOOL SUPPLIES.

Consul-General Sammons also states that the viceroys and governors-general of the various Chinese provinces are inaugurating numerous common school methods, largely through Japanese instructors.

As a result, many of the charts, maps, etc., are of Japanese design and manufacture. Inexpensive articles are, as a rule, more in demand than those that are costly. It might be well for those interested in marketing school supplies in China to prepare an illustrated price list of goods suitable for primary grades, and, after publishing the same in English and Chinese, arrange for a judicious distribution of the articles through approved channels. Ways and means of ordering, stating that the prices quoted are "gold," or otherwise, should be explained. Immediate returns should not be expected, and it should be borne in mind that the sewing machine, the cigarette, and other enterprises that succeed in China adopt this method.

JAPAN.

GOVERNMENT ENTERS TRADE.

OFFICIAL PROTECTION FOR KOREAN AND MANCHURIAN COMMERCE.

Consul-General Henry B. Miller makes a report from Yokohama, with a clipping from the Japan Times, of Tokio, concerning the Japanese trade in Korea and Manchuria. He states that similar articles have just appeared in all the principal Japanese papers, and that there is not the slightest doubt but that the Japanese Government is about

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to launch out into a new form of Government interest, management, and direction of industry. Mr. Miller continues:

The new tariff law recently passed by the Diet, the action of the Government in supervising loans for industrial and commercial purposes, the consideration by the state council of a large scheme for the development of Manchuria, all indicate a clear purpose on the part of the Japanese Government to protect, supervise, develop, and nationalize all important industries. The nationalization of the railways was a single step in the great plan of industrial nationalization toward which the country is fast approaching.

The following are two examples of this tendency:

To promote national saving.—The central government has instructed the prefectural governments to convert local loans, which bear high interest, into foreign loans, which will be advanced through the Industrial Bank of Japan. The total amount of local loans at the beginning of November, 1905, was $32,652,443, of which $6,920,037 was at interest of from 8 to 15 per cent. If local loans at above 8 per cent interest are converted into 7 per cent foreign loans, over $65,000 of interest may be saved per annum. It is expected that these foreign loans will be floated at interest of 6.4 or 6.5 per cent.

Plans of the Government on the development of Manchuria.—The State council on May 29, 1906, considered the question of the development of Manchuria. A Tokyo dispatch states that a scheme was elaborated by the Manchuria committee before the departure of Marquis Saionji on his tour of inspection in Manchuria, and was laid before the cabinet. When the premier returned with a personal knowledge of the situation in Manchuria, the scheme was submitted to the consideration of the elder statesmen, and it is stated was approved by the council.

GOVERNMENT AND PEOPLE WORK AS ONE MAN.

The substance of the scheme, as given in the Tokyo dispatch, is that a company should be formed by the Government and private capitalists jointly for working and developing the railways, mines, and forests in Manchuria. The Government would contribute the railways, mines, and other property owned in Manchuria as its share in the company, and the value of these properties, as they now stand, is estimated at about $35,000,000. As a working fund is required, the total capital of the company can not be less than $50,000,000. In addition an enormous fund is required for the improvement of the railway system and the mines, and it is proposed to raise a loan of $50,000,000 on the security of the company's property.

This scheme seems to be a conclusion of the cabinet and is in harmony with the tendency of Japanese spirit of to-day. One of the prominent statesmen of Japan is also advocating a single purchasing department for the Government by which all supplies of every nature would be secured. Should this plan be adopted, as it may be, it would be only a step further for this department of the Government to become the purchaser of supplies for all the great industries of the country that are falling under the protecting guidance of the nation.

In my opinion the world has made a mistake in its accepted views of Japanese character. They are great in imitation, but they are greater in adaptation, and have the faculty of fitting to Japanese

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requirements, conditions, and character the machinery science, industries, methods, political and economic forms necessary to their development. The great war so successfully carried on is already a thing of the past, and Japan is now most active in the marshaling of industrial forces of every nature, with a view to becoming the master in the trade and commerce of the Orient.

COMPETING AGAINST A GOVERNMENT.

She is undertaking one of the greatest experiments in the world's history in the relations between government and industry. If successful along the lines she is now working the individuals and corporations of America that are striving for the trade of the Orient will discover that they are not competing for this trade against individuals and corporations of Japan, but that they are in commercial conflict with the Japanese nation. I am convinced that this is the condition to which American manufacturers and merchants must look forward and be prepared to meet.

The financial world seems now to be in keen competition to provide Japan with money for almost every purpose, and the lack of wealth is not likely to retard her industrial and commercial expansion. In viewing this great Japanese experiment of nationalization of industries it is not wise to prejudge it, and assume it will be a failure because it would fail in European or American countries. A thorough knowledge of Japanese history and character will cause any thoughtful person to hesitate before pronouncing it impracticable.

A REMARKABLE BUSINESS COMBINATION.

The newspaper article forwarded by Mr. Miller reads as follows:

The Tokyo Asahi states that five cotton textile companies in the Kansai district, viz, Osaka Boseki, Miye Boseki, Kanakin Seishoku, Temma Orimono, and Okayama Boseki, have formed a guild for the exportation of cotton goods to Manchuria. The guild is to intrust Mitsui & Co. with the sole business of selling their goods. The above-mentioned factories will manufacture cotton goods equal to the standard quality, and label them with the same trade-mark. They will export at least 12,000 bales (valued at 1,200,000 yen or $600,000) every year, and keep up the exports even though they incur some loss in the business. The Mitsui company has decided to do its best to push on the sale, and the service will be rendered free of charge for the time being. In order to successfully promote their enterprise in the face of inevitable competition, the parties concerned have approached the ministers of finance and of communications with the following requests:

The government to guarantee a maximum loan of 6,000,000 yen at the rate of interest of 4 per cent per annum, to be advanced on documentary drafts, payable in four months. The loan to be advanced in gold in Japan and repaid in silver at the place of payment of the drafts, according to exchange quotations on the date of payment of the drafts.

Goods mentioned in the drafts to be delivered under certain limitations, even before they are paid or when a security has been furnished, according to circumstances.

The Chinese Eastern Railway to carry the exports free of charge or at half rates for one year hence.

The marine freightage also to be reduced to one-half for one year hence.

GOVERNMENT LOANS ON VARIOUS PRODUCTS.

In this connection the government has decided to make the loan through the Yokohama Specie Bank, without limitations as to the amount, not only on cotton textiles but on matches, cement, beer, marine products, timber, cotton yarns, and other goods to be exported to Manchuria, at the rate of 4½ per cent per annum. In case a single concern or company has effected an export of more than 5,000,000 yen

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a year, the government will refund one-half per cent of the interest mentioned above. As regards freightage, the government will carry out negotiations with the war office in connection with the Chinese Eastern Railway, and also with the N. Y. K. and Osaka Shosen Kaisha.

The government will pursue a similar policy with regard to Korea, where the Dai-ichi Ginko (First Bank) is to act as the specie bank acts in Manchuria.

SULPHUR INDUSTRY.

Consul-General Miller, writing concerning sulphur in Japan, says:

Sulphur is not found combined with other ores, but is found in the vicinity of volcanoes, and as a rule is more or less mixed up with clay and earthy matter. It is extracted and separated from the earthy matter by being heated in retorts; when the sulphur rises to the top of the retort it is run off; it is then about 98 per cent pure. Sulphur is used in Japan in the manufacture of sulphuric acid, also for matches, the quantity that is used annually being about 4,000 tons. About 22,000 tons are mined annually, of which 18,000 tons are exported—about 12,000 to 15,000 tons to the United States, and the remainder to Australia, Hawaii, and British Columbia.

The names of the principal mine owners and exporters in Japan can be obtained from the Bureau of Manufactures.

SOUTH ASIA.

BRITISH INDIA TRADE.

AMERICAN GUNS ARE MOST POPULAR—HOW TO SELL THEM.

Consul-General William H. Michael, of Calcutta, makes a valuable report on the gun trade of India, with suggestions for American exporters. He writes:

One of the principal importers and dealers in guns and rifles and ammunitions in Calcutta has complained to me, as have also traveling salesmen of American goods of that character, that for reasons not fully understood American exporters either will not or can not ship guns and ammunitions direct from New York to Calcutta. This works to the disadvantage of dealers here. It not only delays the goods but also increases the expense. It seems that for some unexplained reason American exporters insist on shipping through London agents. It is barely possible that this is done because it is believed that if guns and ammunitions are shipped direct from America to India there will be trouble in delivering the goods. Careful inquiry has convinced me that there is no such possible danger. The dealers here will take care of their consignments by meeting any restriction imposed by the India government.

In 1898, or thereabouts, a case of gun caps of American manufacture exploded while being handled on a London dock, resulting in the death of several persons. The accident led to an act of Parliament prohibiting the shipment of fixed caps—that is, caps or primers ready for use. This means a cap containing the explosive fulminates and a small bit of iron called a "striker" or "anvil." When the anvil is separated from the cap there is not the least danger of explosion. The English manufacturers and shippers adopted the expedient of

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leaving the anvil out of the cap and shipping it in separate cases. This removed all danger of explosion, and has given them the Indian trade over American manufacturers and dealers. The sequence of this is that dealers here have to sell English ammunition for use in American guns. I am reliably informed that bad results follow from this combination, and the dealers are hopeful that American enterprise will not permit such a state of things to continue much longer.

AMERICAN RIFLES FOR HUNTING.

American manufactured arms and rifles are preferred in India to those manufactured anywhere else. Even the British soldier who by good behavior has won a "shooting pass"—that is, the privilege of going into the jungles to hunt—invariably uses a .45 or .50 caliber American made rifle. Only recently a crack company of a noted British regiment was transferred from Calcutta to another post where good hunting abounds. Before leaving they purchased every American rifle of suitable caliber for large game to be had in Calcutta. If they could have done so they would have purchased American made ammunition and extra caps and "anvils" for use in the guns. But they had to take British made ammunition.

There is really no obstacle in the way of American exporters in meeting the demands of the dealers here. They can ship direct, and they can separate the caps from the "anvils." Will they do it? I may add that the natives use American ammunition when they can get it. But it is their practice to reload and recap their shells, whether paper or metal, as a matter of economy. Because American exporters will not separate their caps from the "anvil" they can not ship to India, and the result is that the natives are forced to buy ammunition of other manufacture, which they do not want.

TOBACCO IMPORTS.

The Anglo-Oriental Commerce, speaking of tobacco in India, says:

The demand for tobacco of superior quality is by no means insignificant, the imports during the year 1903–4 having been valued at more than $1,500,000. During recent years cigarette smoking has come into great vogue among the many millions of natives who live in towns and travel by railway, and is increasing. The importation of cigarettes during the quinquennial period 1899–1900 to 1903–4 increased in steady progression from 200,000 pounds, valued at $100,000, to 2,250,000 pounds, worth $1,000,000. It is estimated that about 840,000,000 cigarettes were imported during 1904–5, valued at $1,150,000. If progression continues, and it seems probable that it will in a greater or lesser degree, the value of imports may rise to half a million sterling in the course of a few years. The cigarettes most in demand are of a low, cheap grade, so that, even if only moderately good leaf could be grown, this trade, with cheap labor and cheap paper from the Indian mills, might be monopolized by local industry run on sound business lines.

FAMINE AND REDUCED TAXATION.

According to a British blue book, famine conditions have been declared to exist in ten districts in India, and by the end of February

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over 360,000 persons were in receipt of relief. In the rest of India the seasons were on the whole favorable and the harvests generally good. After making adequate provision for famine relief, the revenue would show, according to the estimate, a surplus for the current fiscal year of $8,000,000. It has been accordingly decided to carry into effect certain reductions of taxation which are estimated to amount to nearly $3,000,000.

BURMA AND SIAM.

RAILWAY EXTENSIONS WILL OPEN UP COMMERCE.

Eastern railway activity is shown in the following Singapore newspaper statement forwarded by Consul-General Wilber:

Some years ago it was proposed that a railway connection should be established between Burma and Siam for mutual commercial benefit. Construction is now being energetically pushed forward up the Menam Valley, a country of easy gradients and great commercial possibilities. In the meanwhile the English Malayan line from Pegu to Moulmein has reached completion, and its promoters propose to throw off a northern branch to connect it with the Siamese system. There is the possibility that much of the western China trade, which now finds its way to the sea through Siam, will be diverted to Moulmein, a much shorter and more expeditious route to Europe. At present Yunnan external commerce is of very limited volume, but if stimulated by better and cheaper transport facilities it would be pretty sure to expand continuously, and so create a better market for British merchandise throughout western China.

ASIATIC TURKEY.

GOOD COMMERCIAL OPENINGS.

SALE FOR BAKING POWDER AND OTHER AMERICAN PRODUCTS.

Consul T. H. Norton reports from Smyrna on practical Turkish trade opportunities for several lines of American productions as follows:

The bread required for family use in Turkish cities is almost invariably procured from bakeries. In consequence there is but a limited field for the household use of baking powder, as compared with the American practice. Baking powder is, however, employed to some extent for cake making at home, and is thoroughly appreciated by those familiar with the article. In Smyrna it is secured for this purpose usually from pharmacies. There seems to have been no effort made here to introduce any very extended use, and I am strongly inclined to believe that an active agent could create a trade of some extent. The following houses can be advantageously addressed in this connection: Anglo-Eastern Cooperative Company (Limited) (grocery department), London Pharmacy, Great Britain Pharmacy, Avedikian Frères.

In cities and towns distant from the seacoast, such as Harput, Erzerum, Aleppo, etc., my observation tends to show that the demand for

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baking powder would be chiefly limited to the small groups of Americans and other foreigners there resident. Returned emigrants who have lived for a few years in America often bring back familiarity with its use, and express a regret that there is no available supply of the article.

Inquiries in this connection could be addressed to Mr. B. Melconian, American Mission, Harput, who purchases for the station there and is in touch with the foreign colony generally.

AGRICULTURAL IMPLEMENTS AT SMYRNA.

The importation of agricultural machinery at Smyrna is almost entirely in the hands of three firms. Their names are given in the order of their volume of trade. Paul J. Balladur was the pioneer in the business. The first plows and reapers were imported by him from the United States as early as 1884. He is the only importer who makes a specialty of the sale of farm implements, and is the agent of several prominent American houses. Mr. Edward Clarke started in this line of business about thirteen years ago. While dealing chiefly in flour milling machinery and general hardware, he also conducts the sale of agricultural implements in much the same lines as Mr. Balladur, but on a smaller scale. Mr. Clarke sells English plows made after American patterns, his only article of American manufacture being the reaper, of which he sells about ten per annum. Messrs. Avedikian Frères began dealing in farm machinery about six years ago. Their imports include plows, reapers, cultivators, and windmills. The trade in agricultural implements is gradually growing. The demand is hampered chiefly by the widespread poverty of the farming class, but also to some extent by the limited means of transportation to points in the interior remote from the railway lines. Another serious difficulty is the general lack of credit on the part of buyers in the interior, which involves of necessity a cash business in most cases.

CANDLES AND CANDLE-MAKING MACHINERY.

The importation of candles into Asia Minor is slowly diminishing as the local production becomes more developed and the use of petroleum becomes more general. A large share of the candles imported or produced are used in the churches. Smyrna imports annually about 100 tons of candles, valued at $22,000—nearly half from France—most of the remainder is from Belgium. Holland, Italy, and occasionally Great Britain contribute small amounts. The favorite type of French candle is 30 centimeters long and 4 to 5 centimeters thick. These candles are made into packets of 500 grams gross and packed in boxes containing 100 packets. They cost from 90 to 110 francs (franc=19.3 cents) per 100 kilograms, c. i. f. Smyrna. Tapers are imported in boxes of 160 grams, containing from 20 to 40 each. They are quoted at 100 to 105 francs per 100 kilograms. Short, thick candles for carriage lanterns are packed in 2½ kilogram boxes and cost from 104 to 106 francs per 100 kilograms. The above prices are c. i. f. Smyrna. In Smyrna there are no regular candle factories, but a number of small establishments are engaged in the manufacture of tapers and candles, chiefly for ecclesiastical use. There is a distinct opening for an enterprising representative to introduce the use of the simpler

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forms of our American candle-molding machinery; but little can be done by correspondence. Personal representation is the only practical method available.

WATERPROOF WRAPPING PAPER FOR SHIPMENTS.

The need of stout, waterproof wrapping paper for all articles liable to suffer from exposure to weather is keenly felt in the case of importations into Turkey, when articles are destined for inland points. The majority of the goods received at Turkish seaports ultimately find their way, in the original packages, to destinations involving from a few days' to a month's transportation on horseback or by camel caravan. In the case of goods received at Turkish ports and destined for Persian distributing centers, the time of transit may reach 2½ months. It is self-evident that this amount of prolonged exposure renders imperative the use of exceptionally resistant wrapping material. That this material should be very stout is also exceedingly desirable, as the handling of goods in the customs houses of Turkey, when entering the country, is far from gentle. Unless sufficiently strong paper is employed at the outset its value as a protection during the period of inland transit is likely to be seriously impaired.

The use of cloth-lined waterproof paper has been introduced by European importers shipping to this market, but the resistant properties are distinctly inferior to those of samples of American wrapping paper which have come under my observation. I regard it as highly important to all American shippers of dry goods and similar merchandise to this region to devote careful attention to this feature in packing. It may count for much in facilitating the entry of their goods in the Orient, and gaining the confidence of native dealers in their willingness and desire to meet all legitimate demands of foreign trade.

GUIDEBOOKS SEIZED.

Consul Norton also writes concerning the difficulties attending the admission of guidebooks into Turkey, and states that they are seized by the customs officials. He says:

The officials at Turkish ports of entry are instructed to take possession of all guidebooks bearing upon Turkey or any portion of the Empire when found in the baggage of persons arriving from abroad. Such seizures are forwarded at once to the director-general of the customs at Constantinople, from whom they may be secured by the diplomatic representative of the country to which the persons in question belong, on furnishing proper guaranties or on promising to send the prohibited volumes outside the Empire. Frequently guidebooks for countries other than Turkey are regarded as falling under the ban, and are likewise retained.

ARMENIAN MARKETS.

AMERICAN GOODS IN HARPUT.

Consul E. E. Young, of Harput, reports that there has recently been established in that Turkish city a store which intends to make a specialty of American goods and wares. Mr. Young writes:

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The proprietor is a reliable man, who has spent much time in America and believes that many articles of American manufacture can be introduced here, and in time a substantial trade secured. The chief obstacle which has heretofore been encountered in efforts to increase our trade in this district is the antipathy of the local merchants to send trial orders for articles of foreign manufacture unless they are morally certain that such goods will receive the favor of the public. In this respect they must be shown.

The new store is starting well. American stationery and kindred lines are finding a ready market. Catalogues of lamps, notions, cheaper grades of watches and clocks, carpenter and garden tools, and carriage and wagon springs are especially desired. These should be sent to the address of this consulate.

Turkish slippers have come into general popular favor in the United States, their cheapness, style, and durability having attracted wide attention.

This consulate has recently received several inquiries from shoe stores in the United States requesting general information in regard to these slippers, place of manufacture, price, terms, etc. While Constantinople has hitherto practically controlled the manufacture and output of this article, the American Orphanage at Harput has recently taken up the manufacture of these slippers and is now prepared to submit samples and prices to American dealers. Letters of inquiry may be addressed to this consulate and will be promptly handed over, upon their receipt, to the manager of the orphanage.

PERSIA.

BRITISH TRADE SUCCESS.

DEVELOPMENT OF SEISTAN—A GREAT CHANGE IN TEN YEARS.

Sir Arthur MacMahon read a paper recently before the Society of Arts in London, in which he told something of his experience in Persia. He said that Seistan had been forgotten by the outside world for many centuries, and that when he visited it ten years ago it was cut off from all contact with the outer world, and there were no foreigners of any kind in the country. Trade with Seistan did not exist, but since that time the situation has greatly changed. Russia and Great Britain had both evinced a lively interest in the country, and where, ten years ago, no foreigners existed, there is now a British consulate, a Russian consulate, a custom-house under Belgian officers, and a branch of the Imperial Bank of Persia, which is a British concern, and a branch of the Russian bank.

Trade between India and Seistan has steadily increased, he said, notwithstanding the efforts of Russian rivals to suppress it. Russia has paid premiums to her traders to cover the cost of carriage—a very expensive item between Russia and Seistan.

The success of the trade with Persia, Sir Arthur MacMahon declared, was mainly a question of communication and transport, and the opening up of the trade route from Quetta to Siestan had greatly benefited the India trade. The 500 miles of trackless and almost waterless mountain and desert between those places has been traversed by a well-

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marked-out road, along which are stages provided with wells, comfortable rest houses, and provision shops, and has the advantages of a telegraph line and a postal system along it. The opening of this line was expected greatly to increase the British trade with Persia. Owing to a lack of proper transportation, trade between United States and Persia is of an insignificant amount.

MODERN SYRIA.

ANCIENT ANTIOCH RISING SLOWLY FROM RUINS.

Consul J. B. Jackson, of Alexandretta, writes that Antioch, formerly the flourishing capital of Syria and the cradle of the Christian faith, presents now the aspect of a poor city arising painfully from its ruins.

The city is situated about 20 miles from the Mediterranean and on the banks of the muddy Orontes, which empties at Suedea (ancient Seleucia). Its population is now estimated at 25,000, of whom about 5,000 are Christians. The principal resources are from agriculture, olive trees, silkworms, and the soap industry. The annual crop of cocoons is estimated at over $300,000, the larger part being exported to Marseille, and the balance is spun and sold in Aleppo. The local industries utilize some for manufacturing handkerchiefs, table covers, etc.

Antioch also produces a quality of soap containing a considerable proportion of pure olive oil, which is sold all over the surrounding country and exported to different places of Turkey and Egypt. The exportation for 1905 was 264 tons, valued at $54,065. Part of the city's exportation, such as cereals and cocoons, is made through Suedea, where occasionally in the summer season some steamers and sailing ships call, but Alexandretta remains the principal port for travelers, for the whole of the imports, and most of the exported goods. The trip between the latter place and Antioch is performed in eight hours by carriage.

The following-named steamship companies ply regularly between Europe and Alexandretta: The Messageries Maritimes, from Marseille, biweekly; Prince Line, from Liverpool, frequently; Italian, from Naples, biweekly; Austrian Lloyd, from Trieste, weekly; Deutsch Levante Line, from Hamburg and Antwerp, biweekly; and Russian Line, from Odessa, weekly.

CHEAP FOOD SUPPLIES—PICTURESQUE SURROUNDINGS.

The climate of Antioch is very mild and snow rarely falls during the winter season. Like all the interior of Syria and Mesopotamia it is a very cheap place in which to live; however, owing to an important movement of exportation during recent years some of the food articles have greatly increased in price. At present mutton costs about 7 cents per pound, chickens from 12 to 16 cents each, eggs from 5 to 7 cents per dozen. Fish, vegetables, and fruits are very abundant and very cheap; Japanese apples, peaches, pomegranates, plums, etc., are sold at from 1½ to 3 cents per oke (2.2 pounds). A good house, for the place, can be leased at from $5 to $10 per month. A servant is paid about $3 and a cook from $5 to $6 per month.

The environs of Antioch are particularly interesting, being surrounded by historical ruins and picturesque scenery, such as Daphne

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with its beautiful falls and luxuriant gardens of oranges, lemons, etc. It is in the Vilayet of Aleppo and is distant from the city of that name about two days' travel by carriage.

Within one day's drive from Antioch are situated the mineral hot springs at Hamam, which are frequented especially during the spring and fall seasons.

EXTENSIVE USE OF CANDLES.

Vice-Consul-General Wm. C. Magelsson writes from Beirut that the candles used in Syria are both manufactured locally and imported.

Those of domestic production are handmade and of poor finish. The materials used in making them are paraffin and stearin (imitation bees' wax), and in some instances real wax is used. Most of the foreign candles consumed in Syria are of French make. They are imported through commission houses and are sold to Syrian wholesale dealers; a credit of three or four months is usually given. Practically all the business of Syria is in the hands of commission merchants.

Inasmuch as statistics are not available in Turkey it is impossible to state the exact amount of the candle importations; it is known, however, that the consumption is very large. Candles are used in every home and hut in city and country. They are used in the houses of the wealthy natives as well as in the tents of the nomad tribes. Large quantities are furnished to the hotels and churches. They are an important feature of all religious ceremonies. During the celebration of marriages the guests hold long lighted candles, which they carry away to their homes when they depart. Persons desirous of bringing good fortune to relatives and friends, or hoping to draw the blessings of heaven upon themselves, frequently keep from one to five candles constantly burning upon the church altars. The Mohammedans also use them in their places of worship.

Mr. Magelsson also suggests correspondence with a party in Damascus, Syria, who is interested in the importation of American machinery and may be able to assist American exporters in forming connections with firms in that ancient city. The name of this business man will be furnished upon application to Bureau of Manufactures, as well as names of candle makers of Beirut who are interested in adopting modern apparatus.

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OCEANIA.

AUSTRALIA.

PRACTICAL TRADE POINTERS.

IMPORT VALUATION FOR DUTY AT TIME OF SHIPMENT, ETC.

Consul-General John P. Bray reports from Melbourne upon timely commercial topics of interest to American mercantile life as follows:

The following statement is made by the comptroller-general of the Australian customs in regard to the value for duty on goods subject to ad valorem rates, when an advance in price has taken place between the time of purchase and the time of shipment:

A in Australia contracts with B in America on July 1, 1905, to take from the latter 1,000 trucks at £50 per truck during the course of the ensuing twelve months. Owing to circumstances during the course of the year the market value of these trucks increased 50 per cent, so that for a consignment expected from America in January the market price at that date in America would be £75 per truck. In such case would the customs require duty to be paid upon a value of £50 or £75 per truck in landing in Australia? The answer is "the latter," and for this reason: Section 154 of the customs act, under which the duty is levied, seems to contemplate payment on the value at the actual date of shipment, but the point is settled by the regulations, which require a declaration from the person paying duty that the value of the goods mentioned in the entry was "the fair market value of the goods at the time of shipment," and consequently it can only be on that value that duty can be charged. It therefore follows that in converse cases, i. e., if the price had decreased since the making of the contract, and this fact is established by clear evidence, notwithstanding the price mentioned in the invoice, the duty would be accepted in the lower valuation. This is in accordance with my previous ruling in the case of rates of exchange, when the question was at what rate the dollar was to be taken, e. g., at the time of contract or at time of shipment. If we adopt the view of value at time of shipment, then equity, which always governs the action of this department, requires adoption of the last portion of the above statement, notwithstanding our strict legal position.

AMERICAN FLOUR BRANDS ON AUSTRALIAN PRODUCT.

Considerable interest is being evinced in Australia in regard to the alleged bagging of Australian flour under American brands in China. The Melbourne merchants have been advised that the authorities in China are striving to arrest the alleged practice and that there is at present a case in which, it is said, several Chinese were captured in the act of transferring flour from one set of bags to another, but according to them the flour they were branding was all American, and that, as the authorities were unable to connect Australian flour with the matter, it was possible that the prosecution would not continue. The merchants at Melbourne have also been assured that every care will be taken to prevent the frauds complained of from taking place in future.

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IMPORTATION OF POTATOES INTO VICTORIA.

Regulations restricting the importation of potatoes to the State of Victoria were passed at the last meeting of the State executive council. Action has been taken because of the possibility of potato diseases being introduced into this State. Some time ago importations from New Zealand or Norfolk Island were absolutely forbidden, and this prohibition is continued. With regard to consignments from other places, it provides that potatoes in vessels which have traded within three months to any port outside the Commonwealth shall be detained by an inspector and forthwith dipped in formalin. All sackings, bags, or boxes in which such potatoes were imported shall be destroyed by fire. The cost of dipping is to be a charge upon the importer. In addition to these precautions, the insect known as the "lita salanella" has been proclaimed a disease under the Vegetation Diseases Act. Many of the potatoes exposed for sale in the markets have been affected by the moth, but for the future inspectors will have power to take proceedings against anyone who exposes such potatoes for sale.

TRADE WITH INDIA.

An important communication has been received by the State of Victoria from the government of India in regard to the development of trade between the two countries. The communication is dated from Simla, April 5, 1906, is signed by W. L. Harvey, secretary to the government of India, and is as follows:

I am directed to inform you that a department of commercial intelligence has been established by the government of India, primarily for the purpose of rendering available to the commercial world such information as may contribute to the development of Indian trade. The statistical department has been incorporated in it, and it is hoped by the regular exchange of statistical and other information it may be possible to promote commerce between India and Victoria. A journal, entitled "The Indian Trade Journal," will be issued weekly as a means of disseminating intelligence useful to persons interested in such trade. A section in the commercial intelligence office will be specially charged with the study of the trade and statistics of British colonies, and the government of India trusts that the government of Victoria may be pleased to arrange for the regular examination of the Indian statistical publications for the purpose of ascertaining whether there are any articles in which a trade between the two countries could be created. It is desired that the interchange of suggestions and information should be as free and expeditious as possible.

Accompanying the letter are copies of a circular addressed to commercial associations by E. Noel-Paton, director-general of commercial intelligence. In it he says:

My object in addressing you is to establish direct relations with your association, to invite inquiries upon commercial questions, and to propose an interchange of information. It will be understood on both sides that some consideration must be shown to vested interests, and that it would not be permissible to disclose such exclusive information as may have been received confidentially from merchants. But it is hoped that in cases where the information required is of this confidential nature, you will be good enough to pass on the inquiry to those merchants who are known to possess the information in the hope that business may result from direct communication between the parties. This is the course that will be followed in this department in the absence of any request to the contrary. I will forward any information that may seem to point to the possibility of trade between your city and India.

It is intended by the government of Victoria to respond in the same spirit.

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APPOINTMENT OF BRITISH TRADE AGENTS—WOOL EXPORTS.

For several months R. J. Jeffray, the special representative of the British Board of Trade, has been in Australia inquiring into matters affecting trade between England and Australasia. Advices received by the Commonwealth authorities indicate that Mr. Jeffray has been authorized to appoint such an agent in each of the six States of Australia to look after British interests, and that the appointments will be made at an early date.

Australian wool exports for the ten months from July 1, 1905, to April 30, 1906, aggregated 1,380,242 bales, an increase of 225,266 bales over the same period in 1904–5. In New Zealand, also, a good yield is shown, viz, 377,442 bales, making the total yield of Australasia 1,757,684, an increase of 251,314 bales.

COMPETITION OF FOREIGN ASPHALT COMPANIES.

Foreign asphalt companies are displaying much activity in Australia in their efforts to obtain street-paving contracts, particularly in the city of Melbourne, where three companies are engaged in keen rivalry in advertising their products. A Swiss asphalt company paved the sidewalks of a leading thoroughfare at $1.82 per yard, the company laying its own concrete. Later, another company, with an asphalt produced in Trinidad, laid a section in another busy thoroughfare at $1.54 per yard, the city authorities doing the concrete part of the work. A German asphalt company then came forward with an offer of paving a street at $1.46 per yard, the city to prepare the path. These three firms have agreed to maintain the asphalt for twelve months, and the authorities and general public are greatly interested in noting the wear of the rival sections.

TARIFF LEGISLATION MAY BE DEFERRED—REPRESSION OF MONOPOLIES.

The prosperity of Australia, according to a correspondent of the London Commercial Intelligence, has led to a wholesale exodus of prosperous Australians to Europe. A considerable proportion of the departures represent members of leading mercantile houses, a fact that explains the difficulty experienced by commercial travelers in securing orders. It is asserted that there will be a large increase in the number of orders placed in Europe and America at first hand by the principals of Australian houses.

At the recent agriculture show in Sydney there were a large number of oil engines on view, and oil is said to be rapidly superseding steam and electricity as a source of motive power for small engines, and even larger ones where wood and coal are expensive. Much of the success achieved is said to be due to the superior quality and cheapness of the kerosene imported.

The Commonwealth Parliament is not expected to take up the Federal tariff question until 1907. It is said that the Federal customs authorities persist in bringing articles not specified in the free list under 15 and 20 per cent duties. Although an article imported whole may be free, a separate duty is imposed on each part imported sepa-

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rately. No provision in the Federal customs act meets such cases, and the custom officers are therefore free to do as they please.

The population of New South Wales, which was 252,000 in 1856, has now increased to 1,504,000. The wool output has increased from 1,303,070 pounds in 1856 to 13,446,260 pounds in 1906. The premier of New South Wales states that last year the government-owned services paid within $1,216,000 of the amount of the interest on the public debt.

This year the government services will pay the whole of the interest on the public debt, with the exception of $1,000,000, for which sum the government gets roads, bridges, and buildings. Railway rates are said to be 50 per cent below those charged on British roads. At least $150,000,000 of the $389,000,000 constituting the total public debt is held in the State or in connection with the State. The season is said to continue to be very favorable with all rural industries.

The Australian governor-general, in open Parliament at Melbourne, said that a bill would be submitted soon for the preservation of Australian industries and the repression of destructive monopolies. Negotiations with a view to preferential trade with South Africa, New Zealand, and other parts of the Empire were far advanced, but only tentatively. The government hoped to introduce a bill dealing with the subject this session.

GREAT PRODUCTS.

STATE OF NEW SOUTH WALES IS A WEALTH MAKER.

Consul Orlando H. Baker reports continued agricultural and industrial activity in New South Wales. He writes from Sydney, giving the trade returns of that State for 1905:

The $17,000,000 estimated to have been produced last year in the dairying and allied industries of New South Wales include, in addition to butter and cheese, the profits on swine, poultry farming, and the rabbit industry. The butter exports weighed nearly 20,000,000 pounds, and brought $4,090,000 into the country. The output of bacon and hams has increased nearly 150 per cent since 1895. Utilizing a pest, the rabbit industry is rapidly assuming the importance of a staple. During the last year 3,150,300 pairs of rabbits and hares were exported, likewise 4,593,961 pounds of rabbit and hare skins, the whole amounting to $1,572,260, or double the values of the year previous. There was also an increased export of poultry, almost the whole of which went to South Africa and Asiatic ports. The number of sheep in New South Wales in 1905 is estimated at 40,000,000, an increase of 20 per cent over 1904, also 2,000,000 cattle and 420,000 horses. The horses exported from the State to countries outside the commonwealth numbered 5,406 in 1905, and were valued at $594,820. The wool exports aggregated $67,231,300, an increase of over 15 per cent; live sheep exports $7,304,950. The meat exports were $3,079,835, or almost 2½ times those of 1904. Tallow at $2,321,650, and skins at $2,147,895, were almost double the 1904 figures.

In 1904 the mineral production of New South Wales was valued at $31,100,000. Last year it reached $35,089,700. Its possibilities are enormous. Coal figured about one-fifth, copper and lead each one-

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seventh; silver increased over 40 per cent to $1,441,000, tin increased over 10 per cent to $2,330,000, while spelter, which showed $395,430 production in 1904, figured at $6,754,715 market values in 1905. There are many known deposits of kerosene shale of a payable quality, yet kerosene is imported from America and elsewhere.

The timber trade grows steadily. In 1905 New South Wales exported $1,047,100 of native timber, a 75 per cent increase over 1904.

In last year's primary production of New South Wales "pastoral" industries figured at $82,750,000, agricultural at $32,500,000, dairying and allied lines at $17,500,000, mining at $35,000,000, and forestry and fishing, $4,500,000. To this may be added the $51,250,000 value of manufactures, making a grand total of $223,500,000.

ACTIVE HOME AND FOREIGN COMMERCE.

The annual trade of the State keeps pace with its magnificent production, last year reaching a total of $330,000,000. The interstate imports amounted in 1905 to $74,324,555 and the oversea imports to $72,425,615. Ten years ago the imports were only about half those of last year. The exports consisted of $61,314,180 interstate and $122,467,650 oversea goods.

The tonnage of shipping entering Sydney harbor amounted to 4,697,511 tons, or nearly half that of Liverpool or more than that of Hull, Cape Town, Bremen, Havre, Copenhagen, Boston, or Shanghai.

The prosperous conditions are evident on all sides. Last year New South Wales had only commenced to feel the first ripple of the great era of prosperity now developing, yet the savings banks of 1905 show a handsome increase. The value of deposits was $67,491,260. Sixteen thousand more persons were banking with the savings banks in 1905 than in 1904, and they averaged $184.65 the year.

Less than one-seventieth of the 310,700 square miles of the State has been turned over by the plow, yet the primary production last year averaged $550 per square mile of the entire area. The population on December 31 was 1,478,600, and the total wealth produced averaged $150 per head for every man, woman, and child.

PUBLIC DEBT.

Consul F. W. Goding, of Newcastle, writes that the public debt of New South Wales for the last financial year was $391,750,000. The interest on this was all covered, except $2,228,000 out of taxes, by the surplus revenue from the State railways, harbor trust, water and sewerage works, etc. This year the Premier estimates that the revenue from these will be $2,000,000 greater, and will nearly pay the whole interest bill. This provides new bridges, roads, and other works at small cost. Furthermore, railroad rates are much lower than in England.

THE NEW COMMERCE ACT.

The Australian commerce act, which went into effect June 8, contains a provision regarding the labeling of goods. It in part requires a trade description specifying the exact nature of ingredients to be placed on all articles used for food or drink by man, or used in the manufacture or preparation of articles used for food or drink by man,

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and on medicines or medicinal preparations for internal or external use; manures; apparel, including boots and shoes, and the materials from which such apparel is manufactured; jewelry, and seeds and plants. How strictly the terms of the regulations will be interpreted may be judged from the fact that the term "whisky" is only to be applied to "whisky made from pure malt only." The regulations by which these special provisions are to be enforced are to be published in the Government Gazette, and will not take effect until after three months of such notification. This act does not apply to Australian-made goods exported to any one or more States of the Commonwealth, but applies to all imported goods, and if such goods are adulterated they will have to bear evidence of the fact in plain letters.

NEW ZEALAND.

A GOOD FLOWING WELL WITH LARGE EXPECTATIONS.

After efforts extending as far back as 1865, oil has been developed in New Plymouth, on the west coast of New Zealand, to a paying extent. Operations were for a long time discontinued, but recently they were resumed and it was announced, that all difficulties had been overcome and that excellent oil, with a total absence of water, was flowing from a well. The first flow was at the rate of about 30 barrels a day, but there was a great quantity of mud and sand mixed with the oil.

Some time later it was found that there was an enormous pressure of gas, and that the oil was flowing at the rate of 400 barrels a day. Mr. Fair, the manager, declares that it is one of the finest oils he has ever tapped in a varied experience. The bore is down to a depth of 2,331 feet. The company has secured rights over 5,000 acres of land in the vicinity, and, as the present storage capacity of 10,000 gallons has been almost filled, the well has, for the present, been sealed down. The company, however, intends to erect a refinery, and hopes within eighteen months to have six other bores sunk and working. The company's expert anticipates a yield of 4,000 or 5,000 barrels a day from the present bore.

SAMOA.

AMERIÇA RANKS THIRD IN SALES.

Consul-General George Heimrod supplies the trade statistics for the calendar year 1905 of the German island of Samoa, in the South Pacific. He writes from Apia:

The most notable increases in the imports of Samoa for the twelve months ending December 31, 1905, were in textile fabrics, of which $55,897 more were purchased than in 1904, and food-product imports were $38,043 greater. The total imports amounted to $806,089, of which $120,190 was silver coin. This is a very favorable showing compared to the previous year, when the imports aggregated $551,417. The Government supplies in 1905, which came in duty free and are not figured in the commercial imports, amounted to $65,378, the largest

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items being $5,323 worth of lumber and $2,588 of powder. The general imports of Samoa in 1905 are thus classified:

Articles.	Value.	Percentage from principal countries.		
		Germany.	Australasia.	United States.
Beer	$17,443	86.3	7.3	3.4
Liquors	6,806	49.84	21.5	.4
Wine	5,423	37.0	27.0	22.6
Champagne	1,916	86.0	11.3	.....
Tobacco	2,403	18.4	44.4	.4
Cigars and cigarettes	3,894	74.8	18.7	4.6
Guns	157	61.3	15.2	15.2
Powder	2,589	.....	100.0	.....
Food products	220,914	4.12	74.5	19.4
Textile fabrics	177,272	27.2	68.2	2.2
Hardware	25,419	14.8	66.0	18.0
Lumber	68,618	21.0	38.0	41.0
Machinery and boats	16,082	25.0	30.0	41.0
Other merchandise	136,963	19.0	45.0	6.0
Gold and silver coins	120,190	.....	62.0	.....
Total	806,089	.....	.....	.....

The total imports from Germany, exclusive of Government stores, amounted to $196,711. The imports from Australasia, including those from South Sea islands, totaled $479,531, while the United States supplied goods to Samoa to the extent of $100,737. England's sales were only $4,817.

The exports from Samoa for 1905 aggregated $482,835, an increase of $85,329 over 1904. Copra was the only great export article last year, figuring at $470,928 for 8,603 tons. Germany took only $1,971 worth, and the United States $2,737 worth. The other leading export was the cocoa bean, 27½ tons, being valued at $8,000.

PHILIPPINES.

AMERICAN GOODS TAKE FIRST RANK.

The two most noteworthy features of the commercial returns of the Philippine Islands for 1905 are a balance of trade in favor of the islands for the first calendar year period in the history of the American occupation, and the advance of American goods to the first rank in the import trade. The favorable trade balance is due to increased export values, which aggregated $33,454,774 or more than $4,000,000 in excess of the exports for 1904. An increase of $500,000 in American trade in 1905 with the islands, combined with a decline in rice imports, gives to the United States the lead, and in view of the anticipated further decline in the demand for foreign rice in the islands the United States is expected to continue to increase its lead. The increase of $2,000,000 in the imports from the United States in the last five years is largely made up of imports of iron and steel and their manufactures; cotton, raw and manufactured, and illuminating oil. The iron and steel trade approximated $3,000,000 in value. Great Britain gained most in the iron and steel trade with the islands, but the United States takes the lead, whereas Great Britain was formerly in the lead. There is still great room for improvement in the exports from the United States to the islands.

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EUROPE.

FRENCH REPUBLIC.

FIGHT AGAINST TUBERCULOSIS.

VALUABLE FACTS AND FIGURES—ORGANIZED EFFORTS TO PREVENT THE DISEASE.

Vice-Consul-General A. E. Ingram, of Paris, furnishes a timely and valuable report on the prevalence of tuberculosis in France and efforts that are being made by the French authorities to suppress the disease by stringent sanitary rules and hygienic regulations. The statistics furnished in the report, which are of a startling character, show the percentage of fatality and the conditions under which the disease finds the greatest number of victims. The report follows:

The Academy of Medicine at Paris has been discussing quite recently the value of the official statistics as to the mortality from tuberculosis in France. According to these statistics, 150,000 persons die each year in France from this disease. This represents 39 deaths caused by tuberculosis out of each 10,000 inhabitants, while in Germany, it is said, the same malady carries off only 22 persons in 10,000. This fact has led to a critical examination of French vital statistics, and during the discussion at the Academy many interesting facts have been brought out, showing the basis on which these statistics have been established.

Definite information is received from only 713 cities and towns having a population of more than 5,000 inhabitants, making a total of 12,000,000 inhabitants, among whom the mortality from tuberculosis amounts to 42,000 per annum. This has served as a basis of calculation for the rest of the country that furnishes no reliable statistics, and to this is added the deaths from chronic bronchitis (approximately 50,000), making in this way a total of 150,000 deaths from tuberculosis. In Germany, it is stated, chronic bronchitis is excluded, and account is only taken of cases of tuberculosis proper or even only of pulmonary tuberculosis. Allowance must also be made in both countries for errors in diagnosis. Indeed, no malady is apparently so subject to being cut up, divided, and hidden away under various names and classifications in the statistics.

DENSITY OF POPULATION CAUSES INCREASE.

Prof. Albert Robin has established from the statistics of 1901, 1902, and 1903 that tuberculosis increases in an almost regular proportion to the density of the population. He has accordingly compiled a table of

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deaths from tuberculosis in France during the year 1903, showing percentage of deaths per 10,000 inhabitants.

Paris	45.2
Cities of 100,000 to 492,000 inhabitants	34.4
Cities of 30,000 to 100,000 inhabitants	32.8
Cities of 20,000 to 30,000 inhabitants	30.8
Cities of 10,000 to 20,000 inhabitants	26.6
Cities of 5,000 to 10,000 inhabitants	23.4
Cities of 1,000 to 5,000 inhabitants	20.4

This calculation brings the rate close to the German average, and led Professor Robin to state his belief that the German system of popular sanitoria had less merit than public measures of hygiene and sanitation. A great many medical men, however, believe that even the French official figures are below the reality. Those deaths reported as from "unknown causes" amount to 28 per cent and undoubtedly include many cases of tuberculosis. For instance, in ten of the principal country towns, out of 47,490 deaths 10,178 were classified under "other causes." In towns of medium importance, such as Roanne, out of 34,000 inhabitants and 723 deaths the statistics indicate 74 deaths from tuberculosis, 342 from "other causes," and 20 from "unknown causes." It is somewhat the same everywhere. At Nanterre more than half the deaths were stated without any information.

STATISTICS NOT RELIABLE.

The consensus of opinion therefore would seem to be that it is almost impossible to make any serious deductions or comparisons from the official statistics as at present organized, owing to their incompleteness and, in some cases, inaccuracy. While some Departments, like that of the Seine, furnish absolutely exact statistics as to tuberculosis, others do not furnish any at all. Another cause of inaccuracy is the evident lack of sincerity in declaring the cause of death. In certain towns, since the declaration of death from tuberculosis has been made obligatory, only persons in hospitals die from that disease; the rich die from bronchitis. So also in Paris, the death rate from tuberculosis in the Champs Elysées quarter is only 10.5 to 11 per 10,000 inhabitants, while at Plaisance it amounts to 105. Any reform of gathering statistics must also distinguish between the civil and military mortality, for in certain towns where there was a considerable garrison the mortality seemed to be very low, while as a matter of fact the mortality among the civil population was relatively high. The Academy of Medicine has, however, finally decided that the important matter of revising the nomenclature of causes of death must await the next meeting of the International Conference in 1910.

COMPULSORY DECLARATION NECESSARY.

The campaign against tuberculosis in France has assumed such national importance that the Academy has during the past three months been discussing the necessity for the compulsory declaration of cases of tuberculosis by the doctor in attendance; but this has met with a storm of opposition, as it is claimed that thereby the large army of consumptives would be deprived of all means of support, since no one would then knowingly have them in their employ. A few days ago,

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however, the Academy passed a recommendation looking toward this compulsory declaration, namely, that "the doctor in attendance should indicate to those surrounding the patient, and to the patient himself, the measures to take to prevent contagion." The necessity of a special law to combat this disease was urged, this law to take into considera tion not only its transmissibility, but also the other specific factors, such as unhealthy dwellings and alcoholism.

DISINFECTION AND SANITATION.

The necessity for the compulsory disinfection of dwellings that have been occupied by a person suffering from tuberculosis has been overwhelmingly shown, not only in the towns, but also in the country, where hygiene and disinfection are often ignored, and the Academy of Medicine strongly urges this measure. In reference to the subject of the effect of insanitary dwellings, M. Paul Juillerat, chief officer in the health department of the prefecture of the Seine, has recently reported that out of 80,000 habitations under observation, it was found that tuberculosis was more prevalent in houses where there was little light.

OCCUPATIONS ESPECIALLY DANGEROUS.

The question of the effect of certain occupations on this disease has also been carefully investigated in France. It has been found that those trades that bring one into contact with dust (métiers à poussières) are especially dangerous. Professor Landouzy's investigations among policemen and postal employees (both of whom have also very insanitary offices—indeed the public complaints against the impure air in post-offices in Paris are most frequent), and also among laundry workers, have revealed a disastrous condition of affairs. Also among 257 workmen, carefully kept under observation by Professor Landouzy, consisting of carpenters, joiners, floor layers, and packers, all living under practically the same conditions, the mortality from tuberculosis amounted to more than 30 per cent.

Laundry workers, however, were found to be the most seriously affected. From statistics made at Billancourt, Boulogne-sur-Seine, etc. (districts in the neighborhood of Paris where laundries abound), the mortality from tuberculosis reached the alarming total of 75 per cent. So deadly is the handling of indiscriminate soiled linen, that young women succumb after an average of fifteen years, while men last from eighteen to twenty-two years. This surely shows the need of certain precautions, such as special bags for the collection of soiled linen, certainly of persons affected with tuberculosis, so that the contents could be disinfected before being handled in the usual way.

LIABILITY OF BAKERS.

The Paris bakers a few days ago formed an organization for the improvement of the unsanitary conditions under which they have to work. It is stated authoritatively that despite the governmental inspection of bakeries and the most modern hygienic apparatus, out of 400,000 bakers in Paris, 240,000 suffer with tuberculosis. This state of affairs is not only distressing to the workers but a source of danger

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to the consumers of the bread, etc. A professional bakers' school has consequently been opened to educate the men to practice hygienic methods.

PRECAUTION WITH SCHOOL CHILDREN.

It has been suggested that school children suffering from this disease shall carry a booklet reporting the progress of their physical condition, so that the teachers shall separate the unhealthy from the healthy. Paper handkerchiefs have also been proposed for distribution, but their use would be undesirable if not dangerous unless the handkerchiefs were systematically collected and destroyed. The minister of public education has recently issued an order that, inasmuch as the permanent commission for protection against tuberculosis had learned that recent investigations had shown that in certain countries 60 to 80 per cent of the cattle were affected with tuberculosis, all milk consumed in the boarding schools should be pasteurized, boiled, or sterilized. In this connection, however, it is of interest to note that Doctor Calmette, head physician of the Pasteur Institute at Lille, has very recently declared that his experiments proved that even sterilization by heat of the milk from tuberculose cows did not render it safe either for persons suffering from tuberculosis or even those free from it. He considered a rigorous inspection of dairies most desirable.

INGENIOUS AND VALUABLE CUSPIDOR.

The tuberculosis commission has been examining a cuspidor invented by M. Fournier. It is of very cheap construction, and needs no cleaning or touching by hand. It consists of a cardboard cylinder rendered waterproof, containing some pulverized peat impregnated with some hygroscopic and antiseptic substance. This receptacle is provided with a lid, which rises on pressure of a small hand lever or foot pedal, and thus nothing objectionable is in sight, no dust can come from it, and flies can not enter. When it needs emptying it can be seized with a pair of tongs and thrown on the fire.

The state department of public charities, regarding this struggle against tuberculosis as a national and social duty, is considering the establishment of special hospitals for tuberculosis both in Paris and throughout the country, where such patients can be properly isolated and given special treatment. Already at Bligny a model hospital or sanitarium has been erected at a cost of 1,500,000 francs ($289,500), the annual cost of maintenance being 180,000 francs ($34,740). Its present capacity is 120 patients, so that only a very small percentage of the applicants for admission were successful.

VACCINE FOR TUBERCULOSIS.

TAKEN INTERNALLY RENDERS SUBJECT IMMUNE.

Consul W. P. Atwell reports from Roubaix that it is now thought that Doctors Calmette and Guérin of the Pasteur Institute of Lille have finally discovered a vaccine which will render humanity immune from the dreadful scourge of tuberculosis.

On June 12 Dr. Albert Calmette, of Lille, read a paper before the Academy of Sciences in which are embodied the researches which he has made in company with Dr. C. Guérin with regard to infection

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from tuberculosis and its remedy. The following is a translation of their conclusions concerning this most important matter:

"Many experiments having demonstrated that tuberculous bacilli destroyed by heat or other agents pass through the walls of the intestines as readily as living bacilli and are found in the messenteric ganglions and lungs. We experimented with the object of discovering whether young animals—such as calves and kids that had been made to swallow two doses, the second forty-five days after the first, of from 5 to 25 grams of dead bacilli or bacilli whose virulence had been modified—could endure with impunity the injection of a meal of 5 centigrams of fresh tuberculous matter taken from a cow, matter which would be surely infectious under ordinary conditions. We are now convinced that bovine bacilli destroyed by boiling for five minutes or simply heated during the same period will, for five months and even for a longer time to which it is not now possible to fix a limit, vaccinate perfectly against virulent infection through the digestive organs.

"We shall publish before long a detailed account of these experiments as well as others in progress for which we have used treated bacilli from various sources and bovine bacilli treated by iodine and by hypochlorite of lime. Our belief, founded on experiments, now is that young calves may be vaccinated by simple intestinal absorption of bacilli subjected to heat and that this method of vaccination is not dangerous. If further experiments justify the application of this method as a preventive against bovine tuberculosis, nothing can be urged against its application in the case of human beings.

VACCINATION AT BIRTH.

"We think it will be possible to guard children against natural infection by giving to them a few days after birth and again a few weeks later a very small quantity of tuberculous bacilli of human and bovine origin subjected to heat and mixed with a little milk.

"The only precaution absolutely necessary, and one not always easy to apply, would be to guard children thus vaccinated against all tuberculous contamination for a period of at least four months. Special nurseries might be founded for new-born infants of tuberculous parents, where they might be protected against all tuberculous germs until they had acquired immunity through vaccination. We believe that these difficulties would be readily overcome in order to insure such immense advantages as those gained by rendering humanity refractory to tuberculosis contagion."

After Doctor Calmette had read his communication, Doctor Roux announced that he and Doctor Villée, of Alfort, had been engaged in similar experiments and that the results obtained by them coincided remarkably with those of Doctors Calmette and Guérin. While Doctor Calmette's experiments are not yet quite conclusive, the matter is one of such interest to humanity that all investigation in this line should be given publicity.

UNDERGROUND ELECTRICITY.

SYSTEM OF DISTRIBUTION WITHOUT POLES.

Consul-General Robert P. Skinner, of Marseille, writes that the distribution of electrical energy throughout southern France is proceeding with rapidity, and the works now built or building have

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compelled the French Parliament to consider the best methods of controlling a new situation.

Americans will be struck, first of all, perhaps, by the refusal of the large French cities to permit the erection of unsightly poles and overhead wires. Two companies are preparing to deliver electricity throughout the city of Marseille at this moment, and neither has been permitted to raise a single pole. On the other hand, great progress has been made in the manufacture of underground cables, which are carefully insulated and rendered impermeable, so that they may be laid in ordinary trenches exactly like gas pipes. As a rule, when the trench is prepared a layer of crushed limestone is spread on the bottom, and after the cable is put in place it is covered by thin bricks, so as to minimize the destruction by humidity. The methods adopted are comparatively cheap, and are said to involve no danger to life or property or commercial disadvantages. As the location of breaks can be determined before a pick is placed in the earth, just as flaws in ocean cables can be located, the construction of expensive permanent underground conduits may be dispensed with.

The action of Parliament above referred to is expressed in a law promulgated June 15. No pretense is made of fixing any hard and fast rules which might hold electrical development in check, but a few general principles are set forth, and the practical questions arising from each specific demand for the right to transmit energy is turned over to a committee. [Details of the law, furnished by Mr. Skinner, can be consulted at the Bureau of Manufactures.]

It is clearly set forth in the law that by administrative regulation the security of the public will be provided for, and that companies securing concessions will be required to compensate the state, the department, and the communes for the occupation of the public domain according to an appropriate tariff.

Instructions will be issued by the authorities, acting under advice from the committee of electricity, in regard to the technical conditions in which distribution of electrical energy may be undertaken, these instructions bearing upon the security of persons, and of the interested public services and the protection of the landscape. These conditions will be subjected to annual revision, whereby the Government will be enabled to keep pace with progress in electrical engineering.

AMERICAN PIANOS.

Replying to a request for information, Consul-General Skinner says that the most famous and also the most expensive piano in France bears a well-known American name, mainly because it has been the concert piano of preference of a number of great artists. Mr. Skinner adds:

Its price prevents it from becoming a very popular instrument in spite of its recognized superiority. The piano of commerce must sell at retail for between $100 and $200. The old-fashioned square piano is no longer manufactured and is seldom seen in this country. The ordinary French upright piano has a range of seven octaves, and the grand piano (piano à queue) seven and one-fourth octaves. The favorite woods for piano cases are poplar and walnut, and these are not

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highly varnished as in the United States, but are waxed and polished. The present range of prices for French pianos is, for uprights, $89 to $328 wholesale and $116 to $347 retail, and for grand pianos, $251 to $733 wholesale and $289 to $772 retail. The retail dealer makes small profits—about $20 on an upright instrument and $40 on a grand piano. American pianos already have a high reputation in France by which our excellent low-priced instruments might profit provided they could be exported and support the French duty, which in the case of American pianos would be 60 francs ($11.58) for each upright piano and 85 francs ($16.40) for each grand piano. [The names of the best-known Marseille dealers are given by Mr. Skinner, and can be obtained from the Bureau of Manufactures.]

MARITIME EXPOSITION.

INVITATION EXTENDED TO THE UNITED STATES.

Consul D. I. Murphy transmits from Bordeaux the regulations and classifications, together with printed form of application for space, just issued by the Commissioner-General of the International Maritime Exposition to be held in Bordeaux, May to November, 1907. Mr. Murphy writes the following account of the plans:

This exposition is intended fittingly to commemorate the successful application of steam to navigation a hundred years ago. The motive for the celebration of such an event here may be found in the fact that in 1803, four years before Fulton's successful attempt on the Hudson with the first steamboat, the *Clermont*, he made his initial essays in steam navigation on the River Loire in France. It is proposed to celebrate this centennial anniversary by illustrating the history of navigation from the earliest times. There are to be collected models of every kind of ship, ancient and modern, commercial and naval, together with an illustrated display of all that pertains to ocean geography and to river and sea navigation. The exposition is being organized by the French Maritime League, of which Admiral Gervais of the French navy is president. It is under the official patronage of the Government of France, also of the general council of the department of the Gironde, the municipal government, the Chamber of Commerce, and the Philomathic Society of Bordeaux.

Commissioner-General E. Bertin and Deputy Commissioner-General V. Morlot have opened commodious offices in the immediate vicinity of the American consulate, where a vast amount of preliminary work is being done. The exposition is to be on a scale befitting the object in view, and official notification and invitation have already been dispatched to our Government. Assurances of participation have been received from some of the European Governments, and in a communication the Commissioner-General suggests the propriety of the consulate asking instructions concerning the acceptance of the invitation by the Government of the United States, and the erection of an American pavilion on the river front of the exposition grounds. The numerous buildings to be erected on the great square of the "Quinconces" will be not only on a vast scale but architecturally beautiful. This square, which is about 30 acres in extent, facing the river Garonne,

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will be greatly increased in size by the extension of the grounds to the edge of the quay, where the various nations are expected to erect pavilions.

This exposition will afford splendid opportunities for our manufacturers of motor boats, canoes, life-saving appliances, optical and nautical instruments, etc., not only to exhibit the superiority of the products of American genius and enterprise, but to greatly increase their business. The commissioner-general has placed at my disposal a great number of these circulars and applications for space, printed in English, which I will be glad to have sent to all American applicants. The charge to exhibitors for space will be 10 to 60 francs (franc=19.3 cents) for each superficial meter (39.37 inches).

IMPROVED DISINFECTING APPARATUS.

Consul Murphy reports that the municipal authorities of Bordeaux have been experimenting with disinfecting plants and recently a special commission reported favorably on the apparatus invented by Professor Fernand Berlioz, of the University of Grenoble.

Within the past few days this commission, consisting of the director of the Pasteur Institute, the chief sanitary officer, and a number of medical men connected with the health department, made known their findings. The Berlioz apparatus appears to be of simple construction and comparatively inexpensive. The one experimented with had a capacity of 100 cubic feet, but it can be made of any size. It is constructed of metal supported by iron framework. In one of the panels there is an opening for ventilation and in the center an opening for the heating apparatus, which consists of a "Primus" lamp. Over this opening is a cylinder of sheet iron, closed at the upper end and open at the lower. The upper end of this cylinder is hollowed like a cup and in this is placed the disinfecting liquid, "aldéol" (a preparation, I understand, of formic acid). The operation of disinfection lasted two hours and seemed to be complete and thorough, objects placed in the oven having been in no wise injured. The apparatus, it is reported, has been adopted by a number of municipalities in France, and the commission of experts referred to pronounced it exceedingly effective, cheap, and simple of construction.

NEW KIND OF POTATO.

The British vice-consul at Rouen reports that the cultivation in France of a new potato brought from Uruguay has been observed for some time with great interest. A variety of this potato, called the "solanum commersonii violet," is said to possess excellence of taste as well as a nutritive value, and is equal to the best table potato known in France. This variety is distinguished by its resistance to frost, as also to disease, and its one great advantage is that it prospers most in a damp or swampy soil, where no other kind of potato would grow. Every kind of soil, whether clayey, calcareous, or silicious, seems equally adapted for its culture, provided it is damp. The price of this potato, which has now been placed on the market in a limited quantity for planting purposes, is 2 shillings (about 48 cents) per pound.

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CORSICA'S MERCANTILE NEEDS.

By the employment of commercial travelers or the distribution of samples, Mr. Holmes, the English consul, thinks a market or increased sale could be secured in the island of Corsica for the following articles: Cotton and woolen fabrics, thread, pins and needles in cases, and haberdashery in general, Morocco goods, such as purses, small bags, used by ladies for carrying their handkerchiefs, etc., and other fancy goods, biscuits, jams, tools (files, awls, gimlets, hammers, etc.), oil lamps and candlesticks, soaps, drugs, felt hats, iron bedsteads, and cheap cutlery. The consul adds that as the class of people in Corsica who ask for superior goods is not numerous, for the most part only the cheapest kinds are likely to prove acceptable to local tradesmen.

GERMANY.

GREAT MARITIME INTERESTS.

WONDERFUL DEVELOPMENT IN THE LAST DECADE—ITS CONTINUANCE SOUGHT.

The German Government has published a voluminous document on the development of the German maritime interests in the last decade. It is a very comprehensive survey of the subject and is probably intended to assist the bill pending before the Reichstag for the further increase of the imperial navy. Facts and figures are given at great extent to exhibit the enormous increase in the maritime and transmaritime interests of Germany during the last ten years, an increase which is represented by the German admiralty as eminently satisfactory in itself, and yet not without its anxiety for the future.

The document states that the comparison instituted between Germany and foreign countries shows that Germany manifests in many directions an appreciable superiority over foreign countries, and that this advantage will, in certain directions, be long maintained. On the other hand, there is a growing competition with German trade in foreign countries and foreign markets, which must require from Germany the most energetic efforts for the maintenance of its national welfare, since any relaxation of such effort must involve the country in the danger of falling behind and of being dislodged from the position of vantage which it has so laboriously acquired.

FOREIGN TRADE GREATLY INCREASED.

It is indispensable to the continued prosperity of the Empire to maintain and increase the economic relations with foreign countries, especially those across the sea. This is the true function of the development of maritime interests in the widest sense of the words, and its due discharge under adequate protection and support now demands the continuous attention of the State. Since the foundation of the Empire its population has increased by nearly 20,000,000—from a little less than 41,000,000 to a little over 60,000,000. Its rate of increase is

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now greater than that of any of the larger European States, being over 800,000 annually, and surpassed only by the rate of increase of the population of the United States. Formerly the amount of emigration exceeded that of immigration, but since 1895 this has no longer been the case. Not only has emigration been reduced, but from 1895 to 1905 the surplus incoming population has amounted to 94,000. Between 1894 and 1904 the total of German foreign trade increased 66 per cent in value: trade with the United States increased 59 per cent; with England, 38 per cent; with France, 28 per cent, and with Russia, 23 per cent. The rise in the value of the sea-borne commerce amounted to 75 per cent. The document states that since 1894 up to 1904 trade with the United States rose from 894,000,000 marks to 1,430,000,000 marks, an increase of some 75 per cent, the increase of the "special trade" with the United States being given at 59 per cent.

IMPORTANCE OF MARITIME GROWTH.

There can be no denying the prodigious growth of German maritime interests in recent years, as an analysis of the figures amply justifies the contention of the German admiralty to the following effect: "Every branch of the national industry is deeply interested in the further development of the maritime trade. There is no great German industry that is not dependent upon it in a greater or less degree—in the import of its raw material or for the export of its manufactured products, or for both—and thus, that anything which tended to injure or imperil this indispensable factor of the national industry would certainly make itself felt more and more severely, alike as regards the supply for immediate consumption and as regards the maintenance of employment in individual trades, thereby inflicting a loss in both directions upon the working class of the Empire."

IMMENSE TRADE OF HAMBURG.

The North German Gazette publishes some figures from the statistics relating to the trade of Hamburg, which will shortly be issued by the bureau of commercial statistics of that port. From these it appears that the sea-borne merchandise exported and imported during 1905 amounted in all to 17,374,218 tons, with a value of $1,268,161,000. As compared with the preceding year, this shows an increase of 1,500,000 tons in volume and of $123,900,000 in value. The main increase was in the imports, but exports also exhibited a substantial advance.

BUSY FACTORIES.

MULTITUDE OF ORDERS FOR IRON AND COTTON GOODS.

Consul J. I. Brittain makes a report from Kehl saying that the highly favorable situation in the various large German iron and steel centers shows no sign of giving place to less profitable conditions.

In Rhenish Westphalia and Lorraine the work in hand demands the exertion of every effort in order to execute the multitude of orders received, and this activity extends to raw materials as well as to the manufactured and semimanufactured products. The foundries are

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unable fully to cope with the demand. The export trade can not be properly pressed or served in consequence of the exceptional requirements of the home market. Prices for iron and iron manufactured goods are therefore continually rising. For May they averaged for puddling iron, $16.18 per ton; steel iron, $16.66; specular iron, $22.03; thomas iron, $16.18; hematite, $19.52, and smelting iron, to $16.66 $18.56.

In the mining industry and market there continues to be seen the same spectacle of active prosperity which has characterized it for several months. The scarcity on the coal market continues. English coal is consequently being readily bought far down into the interior of the country. The import of English coal to Mannheim, Rheinau, and Ludwigshafen during April amounted to 20,000 metric tons, as compared with 18,000 metric tons during March and 11,000 metric tons during April, 1905.

The outlook in the cotton industry is also regarded as being eminently satisfactory. The majority of the large cotton mills and factories have filled up their order list for the next six or seven months at uniform prices, which, being predetermined, offer a secure guarantee of profit. The apprehension that the import of English yarns might increase to a dangerous extent in consequence of the reduction in the duty on foreign yarns has not been fulfilled to any material extent.

The large German electrical engineering works have decided to compose their differences with regard to catering for the Russian demand for electrical cables and wires by amalgamating their rival interests under the style of the United Cable Works of St. Petersburg, with a capital of 6,000,000 rubles ($3,090,000).

PETROLEUM PROTECTION.

OIL PRODUCTION FOSTERED BY GOVERNMENT.

Mr. Brittain is informed that the petroleum industry of Germany would not pay expenses if it were not for the import duty on refined oil, which is $2.38 per 110 pounds. Mr. Brittain visited the petroleum oil territory in his consular district by invitation of the manager of the refineries, and makes the following report thereon:

The district contains three basins in the vicinity of Hagenau, Alsace, where the oil is found, namely, at Pechelbronn, Biblisheim, Sultz, and Durrenbach. At present about 400 wells are being pumped, as there are no flowing wells. At each of the above-named towns a refinery is located, where the oil produced in that section or basin is refined. The wells are not large producers, the best pumping but 15 to 20 barrels per day, while the less productive pump but 3 to 5 barrels. The oil is very dark in color, and the chemical properties are said to resemble those of the Pennsylvania oil, while the specific gravity is about the same as the Russian oil. The crude oil contains about 35 per cent petroleum, 45 per cent vaseline and lubricating oil, 10 per cent coke, 5 per cent water, 2 per cent benzine, and the balance waste matter.

At present not many new wells are being drilled, as the manager informed me that many of the wells recently drilled produced less than 10 barrels per day, and a producer under that quantity does not

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warrant the expense incident to drilling a well, which I understand is about 3,000 marks ($714). The average depth of the wells is about 1,150 feet. The wells are pumped from central plants, one engine pumping from five to eight wells by means of connecting rods and joints. The output of refined petroleum at the three refineries is about 20,000 tons annually, and is consumed in Germany. The coke residue commands a good price and is sold for the manufacture of electric carbons.

GERMAN POST-OFFICE IDENTIFICATION CARDS.

Consul Brittain further reports that the German postal department has recently introduced a card of identification for the benefit of the traveling public which will prove of great utility to travelers.

Upon the card or folder is printed its number, the date of its expiration at the end of a year, the name, profession, and residence of its owner, the date of its issue, and the seal of the post-office issuing it. Within the fold is pasted a small unmounted photograph of the owner. A small cancellation stamp is pasted partly upon the photograph and partly upon the page. Opposite is a description of the applicant, his general appearance, color of hair and eyes. His birthplace and age are also given, and he is required to sign the card. The last page of the little folder describes the uses to which the card is to be put and the means of obtaining it. The fee is 50 pfennigs (12 cents). The card is to be used in obtaining mail where the owner is not known, and in case he changes his appearance so that he no longer conforms to the description a new card must be issued after proper identification of the applicant.

MOVEMENT FOR BEAUTIFYING CITIES.

Consul Brittain also reports that many of the German cities are organizing competitions in floral decorations for windows and balconies, with a view to beautifying the cities and cultivating the tastes of the people.

Prizes are given for the finest decorations. In this might lie a suggestion for American cities. It is possible that the sense of beauty once aroused in the people will not soon be lost. Strassburg has lately held a competition in the decoration of show windows in mercantile houses. The prizes were awarded by the Stadthalter (the imperial governor), who made a personal tour of inspection. Such competitions do much toward encouraging taste and an effort toward cultivating beauty.

The keeping of roads and streets in good repair and the construction of parks and flower gardens at street intersections have much to do toward making cities and towns beautiful.

SHEEP GUT.

PREPARATION FOR MUSICAL STRINGS.

Consul C. B. Hurst furnishes, from Plauen, further information on the German use of sheep gut for strings for musical instruments and the possibility of employing American sheep gut for this purpose.

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Concerning the method of preparation of the gut prior to shipment, the process seems fairly simple and consists in pressing out the contents of the gut immediately after the sheep are slaughtered, cleaning it as thoroughly as possible by rinsing, and then leaving it one day in fresh water. After this step, the gut is scraped in order to free it entirely from fat, which tends to render the gut unserviceable for strings, and it is then dried by stretching on reels. When thoroughly dried the gut is packed in bundles containing 1 kilogram (2.2045 pounds), sprinkled with a quantity of naphthaline to keep the material free from moths. The length of gut is not prescribed, but the longer it is furnished the more desirable, so that in no case should the gut be reduced to a uniform length. The German string maker attends altogether to the further manipulation.

AMERICAN NOVELTIES.

PRUSSIAN CITY OFFERS A FAIR FIELD.

Clarence Rice Slocum, American consul at Weimar, Germany, expresses the belief that Erfurt, Prussia, a rapidly growing, progressive city of over 100,000 people, presents a field for the American manufacturer which should be productive of not only immediate results, but of greater value in the future. He says:

While the city is not one suitable for the location of general agencies, it certainly deserves personal attention from the American manufacturer, if only in the form of local agencies. The territory has not been appreciated in the past to its full extent, the goods now sold there, for the most part, appearing to have been introduced in a half-hearted manner through the solicitation of German agents, and most desultorily at that.

I believe that if a serious effort were made by a syndicate of American manufacturers by establishing or organizing a sample room or demonstrating exhibition, say for a period of six months, the results would be most gratifying, as Erfurt occupies a singular position in being the purchasing center, in many instances, for merchants of the numerous surrounding towns and villages, to the exclusion of the large jobbing and commission houses of Berlin and Frankfort. The articles of American origin now on sale in Erfurt comprise the following: Agricultural machines, dried fruits, leather, lard, clothes wringers, bacon, tobacco, typewriters, pianolas, petroleum, guts, mineral machine oils, machines for shoe factories, dressings, blackings, counters, box toes, brushes, lasts, glazed kid, hides, skins, various toilet preparations, and patent medicines. Many of these lines could, in my opinion, be exploited on a larger scale and with corresponding profit.

I believe the following, if introduced properly, would meet with material results: Improved brewery machinery, bottling machines, practical carpentering tools at competitive prices, rubber novelties, including syringes, labor-saving devices applicable to the industries of the district, and many devices familiar to the American house and kitchen, but practically unknown to the Thuringian "haus-frau." That the introduction of goods, especially novelties, through the medium of catalogues, or other than intelligent, pushing representatives, is worse than useless, is a point conceded by those familiar with

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the German markets. The first and probably the only use made of the printed catalogue, in the English language, will be in utilizing the illustrated matter for decorative purposes. The balance is consigned to the wastebasket.

LECTURES ON JOURNALISM.

NEWSPAPER WORK TAUGHT AT PROGRESSIVE UNIVERSITIES.

Consul T. J. Albert makes a report from Brunswick, saying as the proposition to establish a university for journalism in the city of New York was seriously discussed, it may be of interest to know the progress being made in Germany in giving instruction in this department of human activity.

The list of lecture courses at the German universities and colleges during the present summer session shows that the treatment of journalism becomes a more important branch of instruction at these institutions. During the present summer session Professor Bücher, the well-known political economist, delivers a course of lectures upon the "History, organization, and technics of journalism," both at the University of Leipzig as well as at the Commercial College of the same city. At the University of Bern Doctor Bühler gives a course upon the "Editing and news service of a newspaper, with practical exercises." The course of Doctor Schmidt at the University of Berlin upon "Public opinion and journalism in Germany" is likewise new.

At Zurich, where now the title of "doctor" can be acquired in the department of journalism as well as that in any other political science, Doctor Wettstein lectures on "History and system of press law," and also upon the "History of the daily press to the French revolution."

Prof. Adolph Koch, the first academic representative of this department of instruction in Germany, repeats at Heidelberg his course upon the "History, condition, and importance of public opinion, of the press and of journalism in Germany," also his "Course of practice introductory to journalism." At the Technical High School at Danzig the well-known political economist, Professor Thiess, reads a course upon "Journalism." At the Commercial College at Cologne the editor, Doctor Brunhuber, delivers a course upon "Culture and the press."

When it is added that last winter Professor von Wenckstern delivered a course at the University of Greifswald upon "Journalism," and during the same season lectured at Berlin and Leipzig on the "Rights of the press," it may be seen how far the German and Swiss institutions of learning recognize more and more journalism as an important factor in human culture and how more and more the educated are attracted to this valuable branch of knowledge.

HONEY PRODUCTION.

EMPIRE LEADS EUROPE IN BEE KEEPING.

Consul-General Richard Guenther writes from Frankfort that the total European production of honey is at present estimated to amount to 80,000 tons, at an approximate value of ten to eleven millions of dollars.

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According to statistics in the Handels Museum, Germany leads in the production of honey among European countries with 1,910,000 beehives, furnishing 20,000 tons of honey. Spain is next with 1,690,000 hives and 19,000 tons of honey. Austria-Hungary is third with 1,550,000 hives and 18,000 tons of honey. The other European states are far behind. France produces 10,000 tons, Holland 2,500, Belgium 2,000, Greece 1,400, Russia and Denmark 900 tons each. In these statistics the effect of climatic conditions is noteworthy, especially when comparing Russia and Greece. The latter has only 30,000 beehives, yielding 1,400 tons of honey, while the former with 110,000 hives produces only 900 tons.

The Handels Museum states that "the news from America that special institutions have recently been established in the United States to raise queen bees for sale will be of interest to bee keepers. To provide a hive with a new queen is a problem of considerable difficulty, but on which good results depend very materially. The active Department of Agriculture of the United States has recently published a bulletin by Doctor Phillips which furnishes thorough information to bee keepers how they can themselves breed queen bees, as those for sale are very expensive."

CARELESS SHIPMENTS.

COMPLAINTS FROM MANY CONSIGNEES.

Consul P. Lieber, writing from Düsseldorf, tells of the carelessness of some Americans who ship goods to Germany, as follows:

Carelessness in packing goods for export and unreasonable delays in transit are causing a great many complaints among the consignees in Europe and are detrimental to the development of our export trade. For example, a case of whisky came with a breakage of 17 per cent, owing to the fact that the bottles were too close to the sides of the box and not protected by a layer of straw or other material. Two steel ranges bought from a factory at Lorrain, Ohio, and shipped from there in September, 1905, did not reach Düsseldorf until the last week in May, and were received in a shameful condition and fully one-third of the castings used in the construction of the ranges were broken and had to be replaced by a local foundry at great expense. The ranges were not fastened and bolted down as they should have been; they were simply left loose inside of the box and the handling at the various depots and piers even if it had been most careful could not help but to injure the ranges in a manner that had they been shipped to a merchant they would have been refused by the consignee and left at shippers hands. If we expect to enlarge our export trade this item of packing and quick transportation is of the utmost importance and will be worthy of careful consideration on the part of our shippers.

DECREASE IN TUBERCULOSIS.

Returns of the German national congress of tuberculosis show there has been a decrease of 38 per cent in the deaths from tuberculosis since 1875, while the sanatoria have restored to health and to their work 34 per cent of the persons treated in them. During 1905 no fewer than

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26,621 persons coming under the workmen's insurance act were treated in the sanatoria. From 1901 to 1905 the insurance companies of Germany have expended $9,246,350 in fighting the scourge. This outlay included 26 sanatoria, with 2,111 beds for women, and 10 sanatoria with 541 beds for children, all these being due to the suggestion of the German Empress.

GREAT BRITAIN.

TRUSTS AND COMBINATIONS.

A MEMBER OF THE MINISTRY MAKES A STATEMENT.

In the British House of Parliament recently the president of the Board of Trade was asked whether he could state the details of the agreements which had been arrived at by British steel manufacturers with reference to steel plates and steel rails, respectively; whether he was aware of the rise in price of these materials which had taken place since the agreements were arrived at, and that a third combination to raise prices had just been formed in the steel-angle trade; and whether he could promise to introduce legislation on the subject at an early date.

Mr. Lloyd-George, in replying, said that he was unable to give the details of the agreement, but he had heard that they include an obligation on the part of Scottish and north of England makers of steel plates not to sell certain classes of goods in each other's markets. A provisional agreement of a similar nature is believed to have been entered into with regard to angles. As regards steel rails, he said, there had for a long time been an agreement among the principal British makers, who are also understood to be parties to an arrangement arrived at by an international rail syndicate for the division of the world's markets, and he was aware of the rise in price which had occurred. Arrangements for maintaining prices exist in a number of other trades in the United Kingdom, and the introduction of legislative measures for dealing with the matter would obviously require very careful consideration. His attention had already been called to the international aspect of the matter, more especially with regard to South American rails.

MANUFACTURERS' MOVEMENT FOR PROTECTION.

The activity of the Labor party and the extraordinary representation and influence it has secured in the present Parliament are apparently the inciting cause of a movement on the part of British manufacturers to combine to protect their interests. A provisional committee has been chosen, consisting of well-known manufacturers of diverse kinds, who are said to represent many million pounds of invested capital. The name suggested for the organization is the Manufacturers' Asso-

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ciation of Great Britain. Its principal objects are thus summarized by Consul Frank W. Mahin, of Nottingham:

To represent to the Government and the country the principles, aims, and needs of manufacturers; to bring about closer relations between employers and employees; to deal with matters of common interest affecting manufacturers, such as legislation, taxation, rates, etc.; to deal with matters of international interest, such as tariffs, trusts, etc. It is believed that relations between employers and employees will be greatly improved if an attempt be made to show that certain conditions of trade must affect both in similar proportion, that increased prices mean increased wages, that increased competition must lower prices and wages, and that bad trade must bring reduced employment. It is felt that the time has come when workmen should be instructed in the economies of production, in questions affecting organization, management of factories, the effect of tariffs and unlimited competition. The relative importance which manufacture bears to the prosperity of the country should also be more generally appreciated, and an effort will be made to show that its encouragement will help more than any other agency in solving our greatest national problem, namely, unemployment. A fundamental principle of the association will be that party politics in every form shall be rigidly excluded.

SHEEP MORE PROFITABLE.

THE WOOL TRADE PROSPEROUS—PRICES COMPARED.

Consul Mahin reports further on the remarkable activity of the wool trade in Great Britain, as follows:

The present clipping season having practically ended, further interesting details are published. A comparison of prices with each June for the past five years shows a steady advance each year in all grades and varieties of wool. Prices now range from 65 to 300 per cent higher than in June of 1902. The British wool trade, since last year's shearing, is declared to be the best the present generation has known. The causes of this activity and of the advancing prices in the past five years are the prolonged drought in Australia, the large consumption of wool during the South African and Russo-Japanese wars, the great export to America, and the present record demand from home and colonial manufacturers.

In brief, the present high prices rest chiefly on a consumption basis, and are therefore highly satisfactory from every commercial viewpoint. Stocks of English wool are reported to be everywhere at the lowest minimum ever known.

Statistics of shipments to the United States show a great increase in values of wool—quantities are not stated—during the existence of the Wilson tariff in comparison with the McKinley-tariff period; then a decided slump just following the passage of the Dingley law, but each year thereafter an increase, culminating in 1905 in a total four times larger than that of any McKinley-tariff year and above the average of the Wilson-tariff years. Last year's great total was due partly to the high prices, but the percentage increase since 1902 has been even

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greater than the percentage increase of prices noted above, which means increase in quantity also. It is believed here that America's imports of British wool will still further increase in the future.

The present condition is in remarkable contrast, in another respect, with that of five or six years ago. Then the English sheep grower spoke contemptuously of wool as a mere "by-product" of the farm. Now he is all smiles, and shearing time is the pleasantest part of the year for him. And to him the future is as radiant as the present. For his existing prosperity is not based on fickle speculation, or on a limited wool clip—like the last-preceding period of great prosperity, in the seventies—but on the solid foundation of demand.

[Under the free-wool clause of the Wilson tariff law 350,852,026 pounds of wool were imported in the fiscal year 1897, valued at $53,243,191. Under the Dingley law 249,135,746 pounds, valued at $46,225,558, were imported in the fiscal year 1905. From the United Kingdom 168,547,908 pounds were imported in the fiscal year 1897 and 76,693,936 pounds in 1905. For ten months ending with April, this year, the wool imported from the United Kingdom aggregated 45,689,231 pounds.]

BUSY INDUSTRIES.

PROSPERITY IN THE ENGLISH MIDLANDS.

Consul Mahin also reveals a unique condition of the Nottingham lace trade. He writes:

It is so prosperous that manufacturers are not only in arrears with orders, but some are quoting prices to would-be purchasers which are not expected to be realized—to keep buyers at bay, as it were; or, as one manufacturer of nets explains, "to protect customers who have already bought." Prices asked are therefore, generally speaking, above real market value, and thus tend to increase the perplexity of the American consul, who is trying to offer competent suggestions to the appraisers at the American ports of entry. The only apparent exceptions to these conditions are silk nets and cotton embroidery trimmings, for which the demand is languid.

The exports of lace goods for the month of May were this year the largest on record, exceeding $1,500,000 in value. To the United States, however, the exports in May, 1903, exceeded those of last May, but that is the only exception for a decade or more. The home trade is also exceedingly good. No change in the prosperous conditions is in sight, and no decline in prices this year is probable.

The second principal industry of this district, hosiery, is likewise very active, but not to the extent of lace. Prices show a tendency to advance, though somewhat unsettled, to the detriment of manufacturers. The outlook for the entire summer and autumn is good.

The boot and shoe industry, of which Leicester is the center in this district, and which until this year suffered a long depression, is enjoying a brisk season, and the prospect is satisfactory for several months to come. Leather values are firm, and it is probable that new contracts would be made at higher prices than those now in hand.

CHEAP ILLUMINATING GAS.

Consul Mahin also reports that the price of illuminating gas in Nottingham, under municipal control, is 60 cents per 1,000 cubic feet

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to ordinary consumers, with a slight reduction to large users. This has been considered quite a low price, but seems extortion in comparison with the rate given by the town of Widnes, in Lancashire. The price there is now 32 cents to small consumers, but will be reduced to 30 cents on July 1. Large consumers will pay from 22 to 26 cents. This is claimed to be the cheapest gas in the world. It is noteworthy that the Widnes gas works are under municipal control. The town has only about 30,000 population, but the profit on its gas works last year is stated to have been £4,703 ($22,887.15). The price of gas is remarkably low everywhere in Great Britain, whether under public or private control, the general range of price being between 40 and 70 cents.

ALCOHOLIC BEVERAGES.

CHARGE THAT FALSE BRANDY WAS SHIPPED FROM HAMBURG.

The chancellor of the British exchequer, speaking in the British Parliament, recently, upon the importation of brandy into Great Britain, said:

The means taken by the officers of customs to prevent imported spirits being falsely described as brandy, in contravention of the merchandise marks acts, are to examine all spirits entered as brandy, and, if such do not appear to be the brandy of commerce, to submit samples to the departmental analyst. No test is applied to ascertain whether spirit entered as brandy is derived from the grape or from other materials, but tests are applied to ascertain whether such spirits contain those constituents other than spirit which characterize the brandy of commerce. If such constituents are not present the spirit is not allowed to be entered as brandy. During the year 1905 two consignments of spirits described as brandy were seized under the merchandise marks act for having a false trade description applied. It is not the case that at the London docks or elsewhere any spirit, whatever its origin, shipped as brandy is allowed by the customs department to be entered as brandy.

It was charged that imitation brandy was shipped from Hamburg, but there was no way to verify the accusation.

WINE CONSUMPTION DECREASING.

According to Consul Mahin, recent wine statistics confirm the evidence hitherto produced that alcoholics are being decreasingly consumed in Great Britain.

The amount of wine drank per capita in Great Britain is now figured at only 3 pints a year. The chancellor of the exchequer, in his recent budget speech, said that in the past six years the consumption of wine had decreased nearly 50 per cent. Imports of wine from the principal sources of supply—France, Spain, and Portugal—have decreased in thirty years from a total of 16,000,000 gallons to 9,000,000 gallons in a year. The decrease from 1900 to 1905 alone was 4,000,000 gallons. Australia has been selling wine to Great Britain in growing quantities, but the total imports of this wine are small in comparison with the decrease in the imports of French, Spanish, and Portuguese wines.

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TIMBER TRADE.

THE INDUSTRY AT SOUTHAMPTON.

Inquiries have been made to Consul Albert W. Swalm by several trade publications as to the lumber trade at Southampton, and from the most recent report of the Chamber of Commerce and from other reliable sources he presents these figures:

Timber or lumber is carried in the returns as "loads" of 50 cubic feet each, and on that basis this port has received the following:

	Cubic feet.
1903	4,244,300
1904	4,421,650
1905	3,394,650

A classification as to kind of timber is not procurable, but the total value of all sawn fir imported in the Kingdom for 1905 is given at $72,000,000, the total value of that entering the port of Southampton being placed by the customs at $877,000, on which amount the United States is credited with $78,150. Russia, Sweden, Norway, the United States, Canada, and Germany lead in the order given as to values sent of this commodity. Eighteen firms handle the business in Southampton [names of which will be furnished on application to the Bureau of Manufactures].

WALES.

CHANCE FOR FIRE-PROOF SAFES.

Consul D. W. Williams reports from Cardiff that the number of combination safes in use in Wales is limited.

Many causes have contributed to this result. In the first place, burglary is not common, and "cracksmen" are practically unknown. Then, the danger from fires can not be great, when practically all the buildings are built of stone or brick. Police protection and fire prevention leave little to be desired along that line. Lastly, the conservative methods and the economical bent of business men of all classes make them satisfied with lock and key safes, some of very ancient patterns. Notwithstanding these facts, there is an opening for combination safes, on account of the number of new enterprises established annually, for safe dealers report that they frequently take orders for such safes. Ordinarily such safes are made to order, and the cheaper price of American safes should give them an advantage with such purchasers. There is no duty on safes, and an agency established at London and with branches in a few of the largest cities in the provinces, together with judicious advertising, should succeed in introducing many American safes, especially in country houses, railroad offices, and many classes of professional men might buy them.

MALTA.

OPPORTUNITIES FOR AMERICAN HOUSES.

Consul John H. Grout, of Valetta, advises that while trade in Malta is undergoing the slack summer season before long local merchants will be turning their attention to the purchase of winter stocks, and

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for this reason now is a good time for American houses desiring to secure trade in that market to make overtures and establish connections. The consul continues:

During the past season fault has been found by local houses with American merchants owing to the latter not paying attention to small orders. In some instances where the Maltese merchant has sent over a small experimental order it has been ignored on account of its not being regarded as large enough, and yet by paying proper attention even to the small order it would probably have led to increased business relations. Flour is one of the most extensive commodities dealt in, but just now owing to an increase in prices very little is being imported. Local millers, on the other hand, are working full time. Bicycle trade is waning and very little is being done. There is a good field here for American novelties. Slot machines of American make are already in the market and the outlook is very flattering for them. Owing to the fact that the direct line of steamers which for several years connected Malta with New York has been discontinued, goods intended for these islands now reach here by way of English and other ports. It is to be hoped that before long we shall again enjoy a direct connection.

AUSTRIA-HUNGARY.

INTERESTING BOHEMIAN EXPOSITION.

AMERICAN GOODS WELL REPRESENTED AT REICHENBERG.

Consul-General McFarland describes the Reichenberg Exposition, which is now in progress in that Austrian city, saying in part:

In its setting the Reichenberg Exposition is certainly unique, surrounded as it is by mountains, with a large artificial lake. It brings together for the first time the varied products of north Bohemia, or the so-called Deutsch-Böhmen. The exposition was intended to cover only the products of the German or Austrian born people of this section, the Czechs or Bohemians being strictly excluded. This has naturally shut out some of the prominent local firms, such as the glassworks conducted at Neuwelt by Count Harrach, who is a Bohemian. The line was also drawn against American, German, or other foreign concerns whose products compete with those of Bohemia, the idea being to exploit only the products of the Austrians who have built up the manufacturing industries of north Bohemia. It is also true that some prominent Austrian firms, actuated partly by motives of economy but chiefly by fear of imitation of their especial products, are not represented. At the same time the exposition is fairly representative, and the exhibits show collectively and for the first time the beautiful rugs and textiles, the glass in its raw state and its perfect utilization, the Gablonz specialties in imitation stones and jewelry, and the porcelain and china from the neighborhood of Carlsbad.

Notwithstanding the strict rules, and under cover of Bohemian agencies, quite a number of American exhibits, somewhat disguised, have crept in. The American typewriter and cash register are everywhere, the Singer Sewing Machine Company has a complete exhibit,

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American roll-top desks and office furniture are exhibited through a local firm, the Northrop loom is shown by the Austrian Textile Works, and American agricultural machinery, exhibited through local agents, of course, dominates that section. Of all the exhibits, however, excluding Bohemian glass, the textile section is the most interesting, for here are found the fine cloths which seem to reach only the European markets and are celebrated in Vienna, Dresden, Paris, and London, but which appear to reach the American markets only as the finished goods of some foreign modiste, with all charges added. In this section are also exhibited the hand-woven rugs and tapestries, rivaling Turkey and Persia, and the soft woolens produced nowhere else. In glass, both cut and decorated, no such collection was ever before brought together.

There has been much inquiry regarding the so-called artificial silk to be produced in Pilnikau, and a factory is now in operation and is preparing an exhibit which will soon be in place.

CHEAP SUBSTITUTE FOR CELLULOID REPORTED.

Consul McFarland also reports that the Austrian newspapers contain the report of a discovery of a complete substitute for celluloid, which is not yet patented nor on the market. The following translation of an article from the Reichenberg Volkszeitung gives such particulars as are yet known:

An invention of great importance to interested industries was made a few days ago by a Gablonz experimenter—a substitute for the widely used celluloid, which, on account of its inflammability and high price, as well as the lack of other desirable qualities, can not always be used in ways desired. The new invention overcomes all shortcomings, although retaining all the desirable qualities of celluloid. The substitute is but little dearer than glass, which is much cheaper than celluloid, and of about the same weight. The new material is very elastic, absolutely noninflammable, and very easy to work by the turner. By a simple method, a lasting polish can be put on all articles made from it, which is a great advantage over celluloid. The material is absolutely without smell. The inventor is a young chemist who has made exhaustive trials of the material with the best results, especially as to durability in heat and permanency of colors under sunlight and in water. It should be mentioned that the material is a nonconductor of electricity and can be used for insulation. The invention promises to be of great importance in the whole celluloid industry. Patents have been applied for, and the inventor is sanguine of practical results.

ACTIVE INDUSTRIES.

EXTRAORDINARY DEMAND FOR COTTON SPINDLES.

Consul Urbain J. Ledoux writes from Prague that the manufacturers of cotton spindles report an unusually active business, the demand being considerably larger than for many years past.

The activity is due to the fact that a number of cotton mills have decided upon an enlargement of their establishments, especially mills in Bohemia, which have placed extensive orders with spindle manufacturers which could be accepted only on the condition of extending the deliveries to several months. This movement must be attributed principally to a return of confidence consequent to the conclusion of the commercial treaties, but a further impetus was given to the demand for spindles by shorter working hours, necessitating enlargements to

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meet demand in certain lines of cotton products. This is specially true of the mills at Belohrad, Hohenelbe, and Königinhof, where the working day of ten hours will be gradually adopted.

PROSPEROUS CONDITION OF IRON INDUSTRY.

A report for the three quarters business (season 1905–6) of the Prager Eisenindustriegesellschaft, the largest establishment of its kind in Bohemia, with a capital of $5,000,000, shows remarkable activity in the local iron industry. Not only does this report show increased profits of about $200,000 over the corresponding period of the season 1904–5 in spite of numerous strikes and some increase in wages, but the company's smelting works are so busy that foreign orders can not be accepted.

There are inquiries and orders from Germany for merchant bar iron and from England for half-finished iron, but the company reports that it has not been able to take them into consideration, as, owing to a brisk inland demand and repeated strikes, the company is itself short of pig iron.

The last troubles with the men resulted in a lockout of 2,450 men in Kladno and Königinhof for a week and a fortnight, respectively, while 450 men were definitely discharged. The recent advance of iron prices will probably make only itself felt in the second half of the calendar year, and it is stated that an advance in fine sheet iron may be expected shortly.

ITALY.

SAVINGS OF NATION.

A THRIFTY PEOPLE AND THEIR BANKS.

Consul-General Hector de Castro writes from Rome that it is figured the total savings of the people in Italy now represent not less than one thousand million dollars. His statements about the savings banks of that Kingdom will therefore prove interesting:

Since the year 1822 there have been founded in Italy 222 savings banks, of which 184 are still in existence. There are two kinds. The first, especially numerous in Tuscany and in the Roman Provinces, are generally incorporated as stock companies, and wholly independent from other institutions, while the others, very common in the northern districts, are generally founded by and dependent upon Government authorities. In the southern Provinces most of the savings banks were originally loan institutions on grain, depending upon their respective communes. Somewhat of a similar nature are a few savings banks established by provincial councils and some by labor unions. There are, besides, 5 banks, the origin and management of which is quite distinct. These are the Milan savings bank, whose officers are appointed by the city council, the Province of Lombardy, and the Government; the Palermo and Carrara savings banks, under Government control, and, lastly, those of Naples and Siena, depending, respectively, from the National Bank of Naples and the "Monte dei Paschi."

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The aggregate sum deposited in the 182 savings banks existing at the end of 1904 came to $355,400,000, which sum was guaranteed by a reserve fund of $56,400,000, making a total of $411,800,000. This shows a substantial growth from 1830, when the deposits were $1,260,000, and from 1870, when they aggregated $69,540,000. The savings bank of Milan represents about one-half of the total deposits, having at the end of 1905 deposits of about $153,400,000 and a reserve fund of over $20,000,000. To the above sum of $355,400,000 must be added $198,800,000 deposited in the postal savings banks, making an aggregate amount of $522,200,000. These figures do not represent the total savings of the Kingdom, for a great deal of money is deposited in other financial institutions and people's banks.

ITALIAN WORKERS GLEANING GOLD.

Consul James E. Dunning, writing from Milan, says that more than half a million dollars in American money is yearly sent out of the United States by temporary Italian residents to a single bank at Naples, and that the total emigration to the States from Italy in the year 1905–6, also approaching the five-hundred-thousand mark, is indicated by the annual statement of the general commissioner of emigration at Rome.

The statement shows that in the period between April, 1905, and April, 1906, 726,331 individuals emigrated from Italy to all countries, against a total of 471,191 in 1904, 293,181 in 1895, and 157,193 in 1885. A total of 316,797 left for the United States, while 86,158 emigrated to Argentina, 30,079 to Brazil, and 5,930 to Canada. The idea of most Italian emigrants, says the emigration commissioner, is to accumulate something like a fortune in the States and return with it to Italy. The intimacy of the home connection is shown by the exhibit of the Bank of Naples, which, having advertised that sort of business as its specialty, has more than 183,000 accounts opened by Italian emigrants in the United States and placed to their credit during the fiscal year just closed more than $500,000. During the same period Italians in Argentina sent to this single bank $828,000, and $425,000 came back from Brazil. The total receipts from such sources at the Naples bank were $200,000 above those of the year before. And that is only one bank among dozens in Italy.

BRANDY.

METHOD FOR ARTIFICIAL AGING.

According to a report from Consul Paul Nash, of Venice, Professor Martinotti, of the Royal Œnological Station of Asti, recommends the following method for the artificial aging of brandy:

Ordinarily brandy, before being bottled, is aged by keeping for the requisite length of time in small oaken casks, from which it absorbs certain ethers and essential oils contained in the wood, and necessary to its perfection. By the method of Professor Martinotti fine shavings of oak are placed in the cask with the new spirit and allowed to remain for one month, the cask being occasionally turned over. At the end

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of this time the liquor is filtered and decanted into white glass bottles, which are filled about two-thirds full, and, after being very lightly corked, are placed in an inclined position, care being taken that the brandy does not touch the stopper. By this means the largest possible surface is exposed to the action of the air, and the oxidation necessary to produce good brandy is materially hastened. The action of the light plays an important part in the maturing of spirits, but bottles should not be exposed to the direct rays of the sun and should be kept in a sufficiently cool place to avoid excessive evaporation.

SWITZERLAND.

PEOPLE BUYING MORE.

MOUNTAIN REPUBLIC INCREASES IMPORTS AND EXPORTS.

The Swiss customs department has recently published provisional statistics of the special trade of Switzerland in 1905. The imports amounted to $264,587,000, an increase of nearly 10 per cent over 1904, and exports to $188,688,000, an increase of nearly 9 per cent. The aggregate value of manufactures imported into Switzerland last year amounted to $93,836,000, which was an increase of $18,122,000 from the previous year. Dividing the imports of manufactured goods into 16 categories, the returns for 1905 show that there has been a material increase in each class of merchandise, as follows:

Articles.	1904.	1905.
Cotton goods	$9,285,000	$11,903,000
Machinery, vehicles, and bicycles	6,596,000	8,832,000
Ironware	4,389,000	6,490,000
Leather goods	5,204,000	7,256,000
Ready-made clothing	6,431,000	8,372,000
Woolen goods	7,969,000	9,207,000
Wooden goods	4,540,000	5,664,000
Flax, hemp, and jute goods	2,573,000	3,299,000
Chemicals	7,708,000	8,336,000
Silk goods	3,278,000	3,807,000
Books, stationery, toys, scientific and musical instruments	4,947,000	5,370,000
Glass, pottery, and porcelain	2,375,000	2,686,000
Paper goods	1,982,000	2,378,000
Straw and india-rubber goods	1,177,000	1,336,000
Goods of other metals	3,367,000	3,520,000
Various other goods	3,898,000	5,380,000

Although Switzerland exported last year of her own manufacture $35,750,000 cotton goods, $3,733,000 woolen goods, $11,913,000 machinery and vehicles, and $1,776,000 leather goods, making a total of $51,396,000, her imports of manufactured goods in these four branches alone amounted to upward of $37,000,000.

PROPRIETARY MEDICINES.

Consul Edward Higgins, of Berne, advises that there is no Federal law concerning the sale of secret remedies in Switzerland. He writes:

Each Canton is supreme and the regulations differ. The Cantons Valais and Tessin prohibit the advertising and sale of secret remedies

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entirely. The Cantons Zürich, St. Gaul, Graubünden, Aargau, Thurgau, and Schaffhausen have formed an association with central offices at Zürich. Medicines must be submitted to the cantonal authorities in order to obtain a permit to sell and advertise. Medicines submitted to any of the Cantons that are members of the association are examined by the central board, and the decisions are published. Many secret remedies have been reported adversely, their sale has been prohibited, and the grounds for such action given as objectionable advertisements, high price, ingredients, etc. While the two largest Swiss Cantons in point of population, Berne and Zürich, do not publish the formula of the medicines, some of the Cantons are at liberty to do so, and thus the secrecy of the ingredients could not be maintained. The proper authorities to address are the cantonal sanitary boards (Sanitäts Behörde). When wholesalers accept an agency for proprietary medicines they are willing to apply for the necessary permits and arrange for advertising, unless the manufacturer prefers to undertake these formalities himself. Wholesalers in Switzerland are Nadolny & Co., Basel; and F. Uhlmann-Eyraud, Geneva.

GREECE.

MARBLE DEPOSITS.

ACTIVE QUARRYING BY ENGLISH COMPANY.

A report from Consul George Horton at Athens indicates reviving interest in the ancient marble quarries of Greece.

Among colored Greek marbles of great beauty may be mentioned those of the island of Skyros; the green marbles of Tinos; the Cipolino marbles of Euboea, of two shades of green that blend in broad, wavy lines that run through the stone; and the red marbles of Mani, known as Rosso Antico. This latter is of a blood-red color, often traversed by veins of white, or sometimes found in solid red.

A British company owns the whole of the white and blue quarries on the Penteli Mountain Range and have spent money lavishly in developing them. The private railway of the company extends 15 miles from the inclined plain of Mount Pentelicus. Blocks weighing 20 tons are taken to the company's fashioning works, whence they are conveyed to the Athens railway, a distance of about 8 miles, also over a private line owned by the company. Work at the Penteli quarries is kept in full swing day and night and about 1,000 men are on the pay roll. It is the aim of the company to place marble on the market at less prohibitive prices than those which have prevailed hitherto. Blocks weighing as high as 40 tons have been taken down to the port at Piræus and loaded on shipboard for export. The Penteli marble is almost pure carbonate of lime, but there is more sparkle in the crystals than is found in Italian marble. Its close texture and high purity of color have given it an undeniable claim to its description as a "white" marble.

But of all the white marbles of the world perhaps the most beautiful is the finely grained and spotlessly pure Parian marble of the island of Paros. The celebrated statues Venus de Milo, the Venus de

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Medici, the Venus Capitoline, were made of this marble. These quarries, as well as those of the adjoining island of Naxos, have been taken over by this same English company.

INDUSTRIAL NOTES.

COMMERCIAL AND TRADE MOVEMENTS.

Consul Horton sends the following notes on Grecian affairs:

During the year 1905 the Greek petroleum monopoly purchased for general consumption 236,165 cases of petroleum, 80,145 of which were from Russian sources. For the Russian petroleum two prices were paid—francs 5.60 and 4.80 the case. One hundred and fifty-six thousand and twenty cases were bought in New York, at francs 5.36 and 5.30 the case. There was a diminution last year in the monopoly's revenue from petroleum of drachmas 468,313.84, said to be largely due to the enterprise of smugglers, particularly in the islands of Corfu, Poros, Spetsae, and in the Cyclades.

During the year 1905 about 6,972 tons of Naxos emery were exported, of which 1,200 were taken in the United States. The price of this product is held at francs 106.50 the ton (1 franc = 19.3 cents) on the ground that it is superior in quality to the Smyrna emery, which sells at 80 francs the ton.

On May 30 the British steamer *Conniston* sailed from Volo with a cargo of chrome ore, valued at £10,401 sterling. Her point of destination was New York, and this was the first cargo of chrome ore to be sent direct from Volo to America.

The olive oil crop of Corfu this year will amount to about 11,200,000 gallons. As a result of this large production the price has fallen in Corfu from 65 drachmas to 25 and 30 drachmas for a barrel of 17.6 gallons. At present rate of exchange 1 franc (19.3 cents) equals 1.09 drachma.

Three new automobiles have recently been imported by Athenians of 40, 24 and 15 horsepower, respectively. One is of Italian make and the other two are French.

MARKET FOR GAS MANTLES.

Three thousand mantles were sold the first year at 5 drachmas each (drachma=17.5 cents), and 15,000 the second year at the same price. From that time the consumption has steadily increased and prices have fallen. The brands now on the market sell at from 0.45 to 1.20 drachmas each. There are three small manufacturers of gas mantles in Athens, but their product is not very satisfactory on account of insufficient knowledge of the chemical ingredients. They sell so cheap, however (6 mantles for 1.50 drachmas), that they are seriously interfering with importation. About 120,000 gas mantles are consumed in the city of Athens yearly.

In addition to the ordinary mantles, gas globes with mantles which can be used singly or in groups have been introduced into Athens, notably a brand from Germany selling at 1.50 drachmas the mantle, but have not become very popular.

[The names of prominent dealers of the above goods in Athens are furnished by the consul and can be secured from the Bureau of Manufactures.]

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DRUGGISTS' SPECIALTIES.

Consul Horton further reports that chemists' specialties, such as porous and surgical plasters, absorbent cottons, medicated gauzes, and patent medicines, are handled in that Grecian city by the druggists, and the principal dealers in those lines in Athens are: A. Krinos, Geranium street, and C. Mavrico, Stadium street. These are both old-established firms and bear good reputations. The house of G. Revelaki, 61 Colocotroni street, carries a complete stock of modern goods in steel, rubber, glass, and other materials for the physician, the surgeon, the oculist, the dentist, and the hospital. Another large firm, more recently established, is the Aretaieon, Zoukios & Petropoulo, 3 Parthenagoghiou street. Surgical and scientific instruments are admitted into Greece free of customs duty, having only the port tax and the octroi to pay. Medicated cottons, bandages, rubber hose, nipples, and similar goods pay 1 drachma the oke duty. (One dollar equals 5.61 drachmas; 1 oke equals 2.28 pounds.)

RUSSIA.

STATUS OF FARM CROPS.

CEREALS SUFFER OVER LARGE AREAS FOR LACK OF RAIN.

Consul Thomas E. Heenan furnishes from Odessa a short summary regarding the condition of the grain crops in European Russia in the latter part of May, according to a St. Petersburg semi-official periodical called the "Torgovo Promyshlennaia Gazeta:"

The first general statement, as drawn up in the months of March and April, had given the account of a most promising aspect of all the crops for the entire country. Since then quite unusually high temperature and very dry weather has prevailed along the Volga River, and in general in eastern, southeastern, and also in large parts of central Russia, with the inevitable result that in those parts the prospects have become far less satisfactory both as regards the winter and spring crops as well. Some of the latter had barely sprouted when the young plants shriveled up. Oats in particular suffered in that manner.

Recent local rains in many places and a general decrease of the temperature have greatly benefited the crops, but where no rain has fallen the state of the cereals, etc., is alarming. Quite the contrary, however, is the case in some of the southwestern and western provinces—Kiev, Podolia, Poltava, Cherson, Bessarabia, and Taurida, also in parts of Caucasia, in the whole of Poland and the Baltic provinces, where timely rain has fallen, and where, owing to the continued warm weather, the almost total absence of late night frost in the spring, and of injurious winds, the general condition of winter and spring crops is eminently satisfactory, particularly so in the three provinces Kiev, Podolia, and Poltava.

HOW DISTURBANCE AFFECTS TRADE—CROP OUTLOOK GOOD.

The British consul-general at Odessa in a recent report gave some idea of the dislocation of business in Russia caused by the political and other disturbances there during the past year.

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The export of grain, the most important of the commercial interest in that district, shrank considerably, partially through poor crops and partially through the lack of transport services. There was also a great falling off in the shipments of sugar, much of this being due to the closing of the markets of western Europe against Russian sugar by the action of the Brussels convention. The numerous strikes interfered to an alarming extent with industrial development, and ordinary commercial operations were considerably impeded by the consequent restriction of financial and other credit facilities. In every class of society has the stress been felt. The crops this year promise to be very abundant, and should the outlook in other respects improve the district may recover much of its prosperity before the end of the season. But the consul is by no means overoptimistic. "During 1906," he remarks, "business will probably be very anxious. The harvest is likely to surpass anything yet known. The demand for machinery may be correspondingly clamorous. But want of money and of credit, or, perhaps I should say rather, the circumstances which have brought about these wants, make business unusually risky. It is probable that the best harvest will be that reaped by the money lender."

FAMINE STATISTICS.

Consul E. T. Liefeld, of Freiburg, forwards a newspaper report showing statistics of the harvest famine in Russia due to the failure of crops last year. The clipping reads as follows:

According to figures published in the Russian press 24 Russian provinces, comprising 138 districts, with a population of 25,000,000, are suffering from the consequences of harvest failure. The deficiency of the last harvest amounted to 347,000,000 poods (112,000,000 hundredweight) of grain, as compared with the annual yield of the preceding three years, and to more than 587,000,000 poods (189,000,000 hundredweight) as compared with the yield of 1904. It is stated that in several provinces the harvest amounted to only one-half and in some other provinces to less than one-third of the quantity required to meet the people's needs.

BELGIUM.

COAL SITUATION.

PRICES ARE STABLE—LACK OF WORKMEN.

Consular Agent W. D. Shaughnessy, at Charleroi, advises that at the present time there is a great deal of discussion among the coal interests of Belgium concerning Government contracts.

The Government has now partially accepted the Belgian tenders, declining the English proffers of 12 lots of coal, which was 2 francs ($0.386) higher. The Government has not yet approved the offers made by the coal companies concerning brickettes and "galletins," but the companies are not disposed to make concessions in price, nor even to maintain the proposed prices, if the State does not accept them promptly.

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It is probable that the latter will not hesitate much longer, but will ratify the propositions already made.

Since the coal strike in the provinces last year, in which the miners were permitted more wages but were held to the working day of 10 hours, coal has been selling at from 12 to 30 francs per ton, according to quality. The situation of the coal market has not been altered and will not change for some time. The coal companies have had for a long time great difficulty in meeting the demands, owing to the reduction of the output, chiefly caused by the lack of men returning to work who went to France during the Belgian coal strike. There is no surplus of industrial coal, not even in coal for household use, and the situation is general both in France and Germany. Although the greater part of the coal output in Belgium is consumed by the manufacturing plants and railroads some is exported to Germany and Holland. If, however, the Belgian manufacturers should apply to the foreign countries for the coal which they lack they would be compelled to pay high prices for it. These facts prove the absolute prosperity of the Belgian coal market, and it does not fear the foreign competition at actual prices, nor the conditions in which the foreign markets find themselves. The coal mining districts of Belgium, being located in the provinces of Hainault and Namur, are possessed of the deepest coal mines in the world, ranging from surface mining to a depth of 4,000 feet. The coal is neither hard nor soft, but of a medium quality.

DRINKING FORBIDDEN.

GOVERNMENT EMPLOYEES PROHIBITED USE OF ALCOHOLIC BEVERAGES.

Consul-General Church Howe reports from Antwerp that the use of whisky and other alcoholic beverages by Government or municipal employees during hours of service is practically prohibited in Belgium, with the result that drunkenness is rarely met with in any branch of the public service, and never among railway employees.

In fact, it may be said that while certain qualities of cheap gin are available to the poorest classes of laborers, drunkenness among them is the exception and not the rule. The prevalence of mild, cheap, wholesome brews of barley beer and light wines at moderate prices divert the taste from alcoholic beverages which are more costly.

The importance of prohibiting the use of all forms of intoxicating liquors by railway employees is not only realized in Belgium but also in the Empire of Germany, where the director-general of the railways in Alsace-Lorraine has forbidden their use by those engaged on the railways during their hours of service. This rule applies to all grades in the service and to all hours of the day. A first offense is punishable by loss of grade and the second by dismissal from the service. The measure was taken in consequence of the accidents which have grown to be rather frequent both on the railway and in the workshops.

It may be added that some of the railway companies of the United States, notably the Pennsylvania, have adopted similar strict regulations against liquor drinking by their employees.

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ROUMANIA.

THE PETROLEUM INDUSTRY.

RAPID DEVELOPMENT—MONOPOLIES PREVENTED.

The petroleum industry in Roumania is steadily developing according to the report of the British consul:

The total production of crude oil in 1905 was about 601,700 tons, or double the production of four years ago. The total export was 214,348 tons, as against 160,442 tons in 1904 and 126,227 tons in 1903, so that the export has nearly doubled in two years. France took 55 per cent of the total export of 1905, comprising 11,790 tons of crude, 79,766 tons of refined oil, and 27,369 tons of benzine. Germany took 17 per cent, the United Kingdom 10 per cent (entirely refined petroleum), and Austria-Hungary 9 per cent of the total. Of the exports of petroleum, 60 per cent is shipped at Constantza and 14 per cent at Braila. The late disturbances in the Baku petroleum fields did not appreciably benefit the Roumanian industry.

NEW LAW TO PREVENT MONOPOLIES.

Very large areas of the Roumanian oil fields are the property of the State and have hitherto been unworked, but a law has recently passed the Chambers providing for the leasing of these lands to private companies, and containing important provisos with the object of preventing monopolies. Some years ago the Standard Oil Company tried to obtain a concession for working the Government oil fields, together with the right of erecting the necessary pipe lines to Constantza, but such an outcry was raised in the country against this monopoly falling into the hands of a foreign company that negotiations were broken off. Other companies have since tried to obtain very large concessions, but without result.

The conditions of the new law are so onerous that it is not likely the privilege offered will be made use of on any considerable scale until the oil fields in private hands are exhausted. Before the introduction of the bill the prime minister, M. Cantacuzene, stated that the Government had decided to bear in mind three important points, viz: (1) That the Government should not dispose of all the available oil fields at once, but must keep some as a reserve. (2) That the creation of a monopoly by placing the oil fields in the hands of one firm only must be avoided. (3) That the transport facilities for crude or refined oil either by rail or pipe lines must remain in the hands of the Government.

The Standard Oil Company has erected a large refinery near Ploesci, capable of dealing with 60,000 wagonloads per annum. Another refinery, owned by the Disconto-Gesellschaft, also near Ploesci, is capable of dealing with 20,000 wagons of 10 tons each, and the Steana Româna Company has another large refinery at Campina. In fact, the number of factories will be for many years to come more than sufficient to cope with the supply.

In the early days of the petroleum industry large sums of money were lost by British capitalists, and it is now mostly financed by Germany. The American Standard Oil Company has now established itself in Roumania, and its prospects seem good.

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TARIFFS.

CHANGES IN VARIOUS COUNTRIES.

SOUTH AFRICA.

AMENDED SCHEDULE FOLLOWS CANADA IN BRITISH PREFERENTIALS.

Consul John H. Snodgrass, of Pretoria, reports as follows on the new tariff schedules of South Africa and how they are regarded by the people:

Since August, 1903, British South Africa, comprising the colonies of the Transvaal, Orange River, Cape Colony, Natal, and southern Rhodesia, has enjoyed a union of customs tariff which has appeared to work so well that its continuation is reasonably assured by all, with the possible exception of the Transvaal and Rhodesia. The new customs tariff that was submitted to the legislatures of the five colonies on the 25th instant, being the result of the conference held at Maritzburg in March, possesses two points at least of outstanding interest: By the increase of protection upon the majority of articles of consumption, further and more definite provision is made for the encouragement of home industries; secondly, the general rate upon unclassified articles is raised from 10 to 15 per cent, and the rebate or preferential upon British products is increased from 2½ to 3 per cent; all of which is most interesting to the American exporter, who hitherto has been compelled to undergo a most severe competition with the United Kingdom because of this preferential and has been subjected to the keen opposition of Germany, with its subsidized steamship lines, and to the strong rivalry of the Argentine with its line of steamers loaded down with frozen meat and corn, which it has been able to place upon the market far below all competitors, with the exception of Australia, which comes under the preferential treatment.

PREFERENCE TREATMENT TO ALL BRITISH COUNTRIES.

It would be impossible to state with any measure of close approximation at this early date as to what value of goods this increased impost would apply, but from a rapid scanning of the list of articles liable to duty (there are some 1,250 specified in the handbook prepared by the conference), it is found that from one-fifth to one-quarter come within the scope of the old 10 per cent ad valorem rate. This is put forward not in any sense as an index to aggregate value, but merely to give a crude idea as to the large number of articles—they may be of small value and of small consumption—upon which the duty of 3 shillings (73 cents) in the pound of declared value will be payable, assuming they are of

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foreign origin. Upon goods the product or manufacture of the United Kingdom and of the Britains beyond the seas who have entered into reciprocal relation with the colonies of the South African Customs Union, the rate will be 12 per cent, or nearly 60 cents on the pound, as compared with 7½ per cent, or about 36 cents previously levied. It may be pointed out that during the first quarter of the present year 71 per cent of the value of goods imported into this country came from the United Kingdom, and it is therefore on a comparatively small quantity of goods that the full 15 per cent will be levied.

Yet it must be remembered that every country with the exception of the United Kingdom will suffer appreciably in exports, for each one comes under the ban of the customs conference recent action, it being apparent that the leading spirits at that convention desire to stifle competition and turn over every particle of trade in British South Africa to England and its possessions.

Although the rebate is advanced from 2½ to 3 per cent, it is noticeable that the preference allowed in respect of goods of British origin is reduced from 25 per cent of the entire duty, as under the old scheme, to 20 per cent under the new. This probably explains the modified phrasing of the rebate clause which previously stated the rebate in the percentage of duty, whereas the new one adopts the clearer mode of stating it on the rate of ad valorem. Such an advance in the general rate is not the only direction in which a higher charge is made; for instance, the free list, which formerly contained nearly 70 articles, has been curtailed to 44.

EFFECT UPON AMERICAN GOODS.

In addition the ad valorem is advanced to 3 per cent as against the familiar 12 cents on the pound, the whole duty, as before, being rebated in the case of British goods. In class one, special rates, the scheme followed appears broadly to have been to make the new rate subject to rebate about the same as the old without; in other words, British goods now pay approximately the same as those of foreign origin formerly. The greatest changes are made in the mixed rates, while a new class (III) is interpolated between the mixed class and the general ad valorem.

American flour, wheat, and such necessities that can not be raised in South Africa will continue to have a profitable market, while iron and steel and electrical supplies, in my opinion, will also find the same ready sale that has characterized their reception for the past score of years. The encouragement policy of the new tariff is displayed chiefly in Class II, where it is found that on carriages, carts, and wagons, which are only manufactured to limited degree in Cape Colony, the duty is doubled. Here, certainly, as in the majority of other instances, the consumer pays the tax. Boots and shoes will carry 15 per cent, instead of 10 per cent, another instance of protecting a few shoemakers in Cape Colony, while the thousands who are now paying 50 per cent more than they should for footwear must settle with the fiddler. There will be found many indications throughout other classes of a desire to assist the farming class by an additional tax upon cereals and potatoes, but when it is considered what a small fraction of the flour and potatoes consumed here is produced by the local farmer the benefit is not apparent.

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DISSATISFACTION IN THE TRANSVAAL.

To give the American people an idea of the discontent the new tariff has engendered in the Transvaal, I quote an extract from the Johannesburg Times. It follows:

Everyone agrees that the cost of living must be reduced if the population of the Transvaal is to become stable and permanent. Consequently the new convention raises the duty on imported articles all round, and thereby the price at which the consumer can buy them. Everyone agrees that the coast colonies live on the Transvaal as ticks on sheep. Consequently the new convention gives them an extra wide mouth that they may attract the more from their prey. Everyone agrees that the effort to live is unusually difficult just now. Consequently this moment has been chosen for making the effort more difficult still. Of the various things a man needs to enable him to support life, nearly every one is to cost him more. Under the ever-increasing burden he begins to wonder whether the game is worth the candle.

The new convention is a rise in duty all around. At the moment the country is being robbed to produce the big railway profits. It is now invited to submit to another robbery. The customs will take it out of one pocket and the railway out of the other. That there is a limit to this game, that another turn to the taxation screw means an exodus in earnest and the demise of the goose that lays the revenue egg. All this has not crossed the minds of the Government budget makers. The legislative council would be playing a bold game to reject this new tariff, but it would be amply justified in doing so. It is so obviously unjustifiable that the moment calls for some action out of the ordinary, and by declining to sanction this last attempt to make the country uninhabitable, the moribund council would be doing the right thing. No one will gain by this new tariff, save the horde of public officials and the greedy coast colonies. Everyone else will be poorer, many will be driven to go elsewhere to make a living. There are, or should be, independent men in the council, and it is their duty to protect and defeat this attempt to ruin the country. The outlook is so bad that drastic measures are called for.

RATES ADVANCED ALL THROUGH LIST.

I give herewith a summary of the changes effected by the new convention:

Twelve cents per imperial gallon, with a 3-cent rebate, has been added to ale, beer, and cider; 6 cents to acetic acid, with 6 cents rebate in favor of the United Kingdom; 2 cents per pound to blasting compounds, with 1 cent rebate; ½ cent to butter, with ½ cent rebate; 2 cents per pound, with 1 cent rebate to manufactured cocoa; 24 cents per ton to patent fuel (with coke reduced 24 cents); 1 cent on confectionery, with 1 cent rebate; 4 cents on wheat and wheaten bran per 100 pounds, with 4 cents rebate; 12 cents on flour and prepared wheat, with 6 cents rebate; 24 cents on barley, buckwheat, maize, millet, oats, rye, peas, and beans, with 4 cents rebate; the same, ground or otherwise prepared, an extra 43 cents, with 6 cents rebate; rice, previously unclassified, now pays 24 cents per 100 pounds; dried or cured fish is increased ½ cent per pound, with similar rebate; fodder increased 24 cents, with 4 cents rebate; dried and preserved fruits increased ½ cent, with similar rebate. The duty on gunpowder and other explosives for firearms, also on firearms, is increased from 10 to 15 per cent, and a rebate of 3 per cent ad valorem. One-half cent per pound is added to lards, fats, and other similar items, with a rebate of equal amount; other articles with similar increase and rebate of the same extent are pickles, sauces, condiments, spices, and tumeric. Sixty cents is added to perfumed-spirit duty per imperial gallon; $1.22 is added to liqueurs and cordials, and 97 cents to other sorts of spirits, but the ad valorem duty is taken off. A heavy duty of $4.87 per 100 pounds has been put upon saccharine and other concentrated sweetening substances; on

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cigars and cigarettes the ad valorem duty is increased from 10 to 15 per cent, while cigarettes and tobacco pay an extra 12 cents on the tariff. Vinegar is increased 2 cents per gallon, with 2 cents rebate, and wines are increased all around from 10 to 15 per cent. Sugar is not disturbed, but in the case of sugar upon which bounties are granted in the country of origin, an additional duty equal to the amount of such bounty is to be levied.

Toilet soaps and powders formerly stood at 25 per cent, but they have now been taken out of that category and they are grouped under one heading as "soaps, soap powders, and extracts," paying a duty of $1.15 per 100 pounds, with 14 cents rebate or 25 per cent ad valorem, whichever shall be the greater. To the special rate list has been added the following articles: Condensed milk, full cream, $1.26 per 100 pounds, with 24 cents rebate; skimmed or separated, 12 cents per pound; mineral oils, 2 cents per gallon; pills, wholesale, per pound, $4.87; second-hand clothing, 48 cents a garment; cement, per 400 pounds, 30 cents, with 6 cents rebate.

NEW CLASS, WITH CHARGES ON VALUES.

A new 25 per cent ad valorem class, with 3 per cent British rebate, has been established, which includes all the articles previously charged at that rate, and there has now been added mineral waters and beverages, fruit juices and cordials, biscuits, cakes, puddings, and pastry, bricks (except bath bricks), harness and saddlery (not including riding saddles), all of which previously paid 10 per cent. Carriages, carts, and wagons (new) are increased from 12½ to 25 per cent, while for second-hand vehicles the duty is 10 per cent and 15 per cent ad valorem, which comes to the same thing.

Bicycles are increased from 12½ to 15 per cent, while motor cars and motor cycles rise from 5 to 15 per cent. Boots and shoes have the duty increased from 10 to 15 per cent, with a minimum duty of 18 cents on each pair of adults' boots and 6 cents for children's.

Some measure of protection has been afforded to the printing trade by increasing the duty from 10 to 25 per cent (or 4 cents per pound, whichever shall be greater) on advertising, printed matter, including catalogues, price lists, almanacs, calendars, labels, posters, and show cards, and a similar duty on account and check books, printed stationery and forms, company reports, script, share certificates and promissory notes, cards (Christmas, etc.), directories, guide books, and handbooks relating to South Africa, and boxes (cardboard) and bags (paper) printed upon.

Practically all the articles previously in the 2½ per cent ad valorem class are increased in duty to 3 per cent with (as before) a rebate of the whole amount if coming from the United Kingdom. Mining buckets, skips, etc., however, go from here into the free lists, while nitric and sulphuric acids are deliberately excluded and will apparently be charged 15 per cent. To this 3 per cent class many articles have been added that previously paid 10 per cent. Among these are ammonium, barytes, and pumice in bulk, calcium, carbonic acid gas, cement (liquid) for tube mills, collodion cotton, lifts and gates, magnesium sulphate, wool and hay presses, confectioners' requisites, disinfectants, slates for roofing, bottles and jars including water bottles, emery, felt, rubberoid and similar roofing material, gypsum,

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hops, hubs, rims, spokes, springs, axles and steps, etc., for carriages and wagons, screw and hydraulic jacks, staves, wire for making mattresses, unmanufactured wood, and ceiling and flooring boards.

THE AMENDED FREE LIST.

The following articles have been taken out of the free list, 3 per cent ad valorem duty added with, however, a rebate of the whole amount in favor of goods from the United Kingdom, viz: Ambulance materials, bookbinders' requisites, brass and copper and composition metals, collodion cotton, glycerine and nitrates for manufacturing purposes, fire clay, terra alba and fire bricks, glue, hair cloth and springs for furniture, iron and steel (unmanufactured), launches, tugs, and lighters, lead, leather, metal of all sorts in the rough, paper used for printing purposes, potash and soda and their derivatives, printing and lithographic inks, resin and carbonate of ammonia, saddletrees, school furniture and requisites, sheep dip and dipping powders, sprayers and sprinklers, thread, tin and zinc in the rough, vegetables, fresh or green (but not including garlic, potatoes, or onions), water-boring and pumping apparatus, wool, straw, hay, and forage presses.

To the free list has now been added alum, marble in the rough or sawn, nitrates for fertilizing purposes, palm oil, and cotton-seed oil, chloride of platinum, stone linings and pebbles for tube mills, sulphurous anhydride, tallow, wood pulp, mining skips, rails, buckets, etc., the last-mentioned articles being previously charged 2½ per cent.

Enlargements of photographs are expressly excluded from the list and will have to pay 15 per cent. Original sculpture may come in free, but the words "including casts or models of sculpture" have been cancelled. Other articles dropped out without specific mention are agricultural implements and machinery, anchors and chain cables for skips, dryers or evaporators of fruit or other produce, wine presses and wine pumps, all of which will apparently have to go into the general 15 per cent class.

All goods, wares, and merchandise not elsewhere charged with duty and not enumerated in the free list and not prohibited to be imported into the Union, shall be charged with a duty of 15 per cent ad valorem. Three per cent ad valorem will be rebated when the goods are of British origin.

ALGERIA.

SPECIAL CUSTOMS TARIFFS.

Consul James Johnston, of Algiers, writes:

As a general rule the tariff rates in Algeria are the same as in France, but a few articles are more lightly taxed than in the mother country. Tobacco and matches, which are Government monopolies in France, pay only very moderate duties here. There is little to interest Americans in the other items favored. On the other hand, certain articles pay a supplement of duty on entering Algeria under the heading of "Octroi de Mer."

The proceeds of this duty are the property of the colony, and after retaining one-sixth of the amount for primary education are divided among the communes of Algeria proportionately to the population. Algiers receives yearly about $60,000 from this source and the smallest commune of the colony about $480.

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It is now proposed to put a tax on tobacco in Algeria, and a favorable vote has been obtained from the Délégations Financières during the last session. This tax would be, like the Octroi de Mer, applied entirely to the wants of the colony.

AUSTRALIA.

BRITISH COLONIES DRAWING CLOSER TOGETHER.

Consul-General John P. Bray, of Melbourne, reports that the prime minister of New Zealand had a conference with the Australian ministry on the subject of preferential trade between the two countries. As the result of this conference the Australian minister of customs has made public the following statement:

We have finished our work. It now rests for our respective cabinets to consider the proposals on which we have agreed. The number of articles to be covered by reciprocity is not large. There is consequently no broad foundation on which to build a big preferential agreement. We have to conserve the interests and trade of our own States. The field of action is not very wide, but such as it is we have come to an arrangement which will be dealt with by our respective governments with a view to legislative action at a later date.

During the year 1904 the total trade between the two countries amounted in value to $16,308,331, the Australian exports to New Zealand being $7,272,502 and the imports therefrom $9,035,829.

SPECIAL AGREEMENTS WITH SOUTH AFRICA.

The following communication has been received by the government of Australia from the high commissioner of South Africa:

With reference to previous correspondence regarding your request for preferential treatment, I have the honor to inform you that the report of the convention is being laid upon the tables of the various (South African) legislatures, and, under articles 3 and 4 of the convention, preference is being extended on certain articles on the rated list, including butter, corn and grain flour, fodder, Quaker oats, fruits, lard, and meats. The general ad valorem rate has been increased from 10 per cent to 15 per cent, with a preferential rebate of 3 per cent; the 2½ per cent list has been increased to 3 per cent, with a preferential rebate of the whole amount. The distinction between refined and unrefined sugar has been eliminated, which will dispose of the difficulties regarding Mauritius and Australian sugars.

Preferential treatment is, of course, contingent upon the granting by the Commonwealth of equivalent reciprocal privileges, and, on hearing from you that this has been provided for by legislation, the various parties to the customs union will, in ratification to the convention, decide as to the date on which the preference shall come into operation. When preferential treatment was adopted by the authorities of the South African customs union it was recognized that preference to Great Britain was the basis of preferential trade. The customs union convention does not make this a condition of extending preference to Australia, but the parties to it would welcome the adoption of that policy.

The receipt of this offer of preference has given much satisfaction in official and business circles in Australia, and it is understood that at a meeting of the Federal cabinet the government determined to introduce a bill at the present session, which opened on July 7, to cover preferential arrangements with the South African colonies. The Australian and South African trade is at present entirely in one direction, the exports from Australia to South Africa in 1904 amounting to $10,187,073 and the imports therefrom to only $34,255. The South African offer is open to Canada and New Zealand equally with

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Australia in addition to England, but the preference on the new basis, including butter, grain, flour, fodder, fruits, lard, and meats, will give an advantage to Australia which will be fully utilized.

COMMODITIES AFFECTED.

The following list of exports from Australia to Cape Colony and Natal during 1904 of the articles which will be affected by the new arrangements and which represent nine-tenths of the total exports from the Commonwealth to South Africa, will be of interest:

Article.	Cape Colony.	Natal.
Butter.....pounds..	2,403,381	3,240,808
Fodder.....tons..	14,474	3,072
Apples.....pounds..	550,200	488,000
Other fruits and vegetables.....do.....	4,000	70,300
Barley.....bushels..	8,419	3,442
Wheat.....do.....	4,632,246	381,602
Oats.....do.....	188,519	55,084
Bran, pollard, etc.....do.....	46,088	334,123
Flour.....tons..	9,030	19,643
Oatmeal.....hundredweight..	4,823	.....
Hay and chaff.....tons..	1,461	1,631
Bacon, etc.....pounds..	10,558	.....
Frozen beef.....do.....	16,596,558	6,437,661
Mutton, etc.....do.....	3,625,294	6,980,584
Pork.....	.....	76,600
Rabbits, etc.....pairs..	27,475	211,268
Other frozen meat.....pounds..	402,185	369,116
Potted meats.....	229,147	208,375

EXPORTS TO UNITED STATES.

The State of Perak exported 39,218 piculs (picul=133⅓ pounds) of block tin, January to April, this year, a decrease of 7,289 piculs from the 1905 period, while the tin ore exports of 96,463 piculs was an increase of 302. The State of Negri Sembilan exported 25,195 piculs for the first four months of 1906, a decrease of 1,810 over the corresponding 1905 period. The State of Selangor exported 88,283 piculs, a decrease of 7,432.

The total exports of tin passing through the ports of Singapore and Penang during the first three months of 1906 was 31,192,798 pounds, of which 9,125,066 went to the United States. In the 1905 period the exports were 32,898,599 pounds, of which 12,946,800 went to the United States. These figures cover the total amount shipped from all tin-producing Malay States.

FRANCE.

IMPORTATION OF PRUNES.

Consul A. Gaulin, of Havre, advises that the French Congress has passed a law prohibiting the importation of prunes into France whenever the country of their origin is not plainly designated. The principal provision of the law reads as follows:

> The words indicating the country of origin shall be stamped, either in relief or cut in, in easily legible Latin letters of at least 4 millimeters (0.16 inch) height, in the center of the cover or of the bottom of the receptacle containing the merchandise, and in a place where there is no other imprint. The same words shall be marked with adhesive letters on the cases and the packing material used to ship the goods.

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Violations of any provision of the law shall be punished by a fine of not less than 100 francs (franc = 19.3 cents) and not more than 2,000 francs. Second offenses, however, are punishable by a double fine and imprisonment. The law applies also to preserved vegetables and sardines. It is aimed chiefly at domestic fraud, it being claimed that unscrupulous dealers have of late years sold both in France and abroad in considerable quantities foreign products as French. In the case of prunes, it appears that the smaller the yield in France the lower was the price of the so-called French prunes. This has been demonstrated time and again and it is held as conclusive proof that the California prunes, which are sold for much less than the French prunes, have been clandestinely naturalized and presented to the public as the genuine domestic article.

NEW LAW AFFECTING TINNED AND BOTTLED GOODS.

Consul W. P. Atwell writes from Roubaix that it will be of interest to shippers of canned and bottled goods, such as sardines, vegetables, fruits, etc., to know that the French Senate has passed the bill which prohibits the importation, storage, exposure for sale, or sale of any foreign tinned sardines, vegetables, and fruits the cases and receptacles for which do not bear a stamped design plainly indicating the country and the manufacturer from which they emanate. The penalties for infringement of the law vary from $20 to $400.

RATE ON CODFISH REDUCED.

The following announcement of the French Government, received from Consul-General Skinner, of Marseille, will prove especially interesting to New England fishermen:

The President of the French Republic, by a decree dated June 13, has reduced the duty upon codfish imported into the island of Guadeloupe from 30 francs ($5.79) to 20 francs ($3.86) per 100 kilograms (220 pounds), this reduction to be effective until May 31, 1907. It appears that codfish is the basis of alimentation among the working classes of Guadeloupe, that prevailing prices have been very high, and that the market is supplied almost exclusively by French firms. The change is undoubtedly intended to permit American exporters to enter the market.

EFFORTS FOR ABOLITION OF OCTROI TAXES.

There is an agitation in France in favor of abolishing the octroi taxes, but the people have not yet discovered any satisfactory way of procuring the money that is now derived from those taxes. These octroi duties, collected by the municipalities for revenue purposes, are professedly not protective and fall equally on all goods, whether native or foreign. The octroi taxes have to be paid before the goods are consumed in the towns.

Consul-General Hearn, who represents Great Britain at Havre, has written to his Government a very full report on the subject. He illustrates the effect of octroi duties by the case of imported spirits, on which the import duties are 62 cents a gallon, but spirits have to pay

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in addition an excise duty of $2.39 per gallon and an octroi duty of 50 cents, making altogether $3.51 per gallon of taxes on proof alcohol. This restricts the consumption of spirits, no doubt, to a very considerable extent. Coal has to pay an octroi tax of $1 per ton in Havre and Rouen, which naturally restricts the use of coal. The national laws of France divide the communities into six classes for the imposition octroi duties. The first class includes towns of 4,000 inhabitants and under; the second, those of 4,000 to 10,000 inhabitants, and so on to the sixth, which comprises towns of over 100,000 inhabitants.

The amount of taxes that can be levied on different articles is restricted according to the size of the town, the higher tax being imposed in the more populous cities. The octroi is a specific tax, in no way calculated on the value of goods; thus inferior pieces of meat pay the same as the better pieces and the inferior wines pay the same as those of the best quality. Octroi duties are therefore paid for the greater part by the poorer classes, while luxuries, which are only possible to the richer classes, are insufficiently taxed, according to a report made by M. Yves Guyot to the Chamber of Deputies on the subject. These duties are levied on the necessaries of life, and certain absolutely indispensable articles, such as grain, flour, fruits, and vegetables are not allowed to be taxed.

WHY THE TAX IS NECESSARY.

In 1897 a law was passed prohibiting the imposition in the future of octroi duties on so-called hygienic beverages, such as wine, cider, and beer. In 1903 the number of towns levying octroi was 1,504, and the gross receipts in those towns aggregated $55,000,000. In the principal towns which have recourse to octroi duties the revenue derived from them represents about 60 per cent, and sometimes even a greater proportion, of their ordinary revenues. Some of the towns that sought to get rid of octroi taxes have had to face a falling off in revenues without being able to make it up entirely. For that reason it is felt impossible to get rid of all these taxes imposed on articles coming into a place until the Government lifts some of its taxes and allows the municipality greater freedom in imposing municipal taxes. The Government imposes for its use taxes of all kinds, including those on houses, doors, and windows, and a property tax, which makes it necessary for the municipalities to resort to the octroi.

THE NETHERLANDS.

MACHINERY AND OTHER GOODS MUCH DESIRED.

The Dutch ministry of finance has passed a resolution to the effect that from June 1, 1906, the undermentioned articles are to be admitted into Holland free of duty as "factory engines:"

(*a*) The various sorts of motors, with the exception of those susceptible of use for motor cars and motor cycles; (*b*) dynamos; (*c*) engines, the arrangement of which shows that they will be worked by mechanical power; (*d*) measuring, registering, safety, and other similar appliances belonging to the engines referred to under (*a*), (*b*), and (*c*), and

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imported along with them; (*e*) other parts of the engines mentioned under (*a*), (*b*), and (*c*), even when imported separately, provided they be declared as such and there be no doubt as to their nature on examination. It is also provided that, in case of dispute as to whether an article entered as a "factory appliance" is free of duty or not, the collector may permit the duty-free entry of the article on bond being given for the payment of the duty if required.

FACTORY ENGINES EXEMPTED.

The Dutch ministry of finance issued an order that from June 1 the following articles are to be admitted into Holland free of duty as "factory engines:" (*a*) The various sorts of motors, with the exception of those susceptible of use for motor cars and motor cycles. (*b*) Dynamos. (*c*) Engines, the arrangement of which shows that they will be worked by mechanical power. (*d*) Measuring, registering, safety, and other similar appliances belonging to the engines referred to under *a*, *b*, and *c*, and imported along with them. (*e*) Other parts of the engines mentioned under *a*, *b*, and *c*, even when imported separately, provided they be declared as such and there be no doubt as to their nature on examination.

It is also provided that in case of dispute as to whether an article entered as a "factory appliance" is free of duty or not, the collector may permit the duty-free entry of the article on bond being given for the payment of the duty if required.

AUSTRIA-HUNGARY.

SEPARATE ACTION MAY BE TAKEN—COMPLICATED SITUATION.

The Austro-Hungarian customs difficulty is still giving rise to much uneasiness. Under the Hungarian law of 1899 it was provided that Hungary shall resume her right to act as a separate customs territory in case a new economic compact be not concluded by the end of 1902, and that in default of such new compact no commercial treaty shall be concluded by Austria-Hungary as a common customs territory beyond the end of 1907, the economic relations between Austria and Hungary being meanwhile governed by the principle of reciprocity. A new compact was, however, concluded by the end of 1902, but was not ratified, nor even discussed, by either Parliament, although the Austrian Chamber adopted the tariff comprised in the compact and although the new Austro-Hungarian commercial treaties were negotiated on the basis of that tariff and concluded for a period extending to the end of 1917. Both Austria and Hungary say they will not ratify the Szell-Korber compact, in which case separate tariff action may be taken in 1907, although in the next eighteen months a satisfactory agreement may be reached. Austria holds fast to the proposed population ratio of 57 to 42 per cent of contribution to common expenditure, while Hungary declines to go beyond the present quota of 65 per cent for Austria to 34 per cent for Hungary. The Austrian minister has withdrawn the Szell-Korber compact, which complicates the matter somewhat.

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EGYPT-GREECE.

RECIPROCAL AND FAVORED-NATION TREATMENT.

Minister Jackson, at Athens, reports under date of June 16 that a commercial convention between Greece and Egypt, which was signed at Athens on June 4, 1906, has been submitted to the Greek Chamber of Deputies for ratification. Minister Jackson states that this convention in general terms provides for reciprocal most-favored-nation treatment in all matters relating to commerce and navigation for a period of eight years, beginning June 28, 1906, and that there is added to the treaty a "procès verbal" relating to the exportation of hasheesh from Greece, and of articles constituting a monopoly in Greece from Egypt, as well as others relating to the proceedings to be taken against smugglers, and to trade with the Sudan.

NORWAY.

EXTRAORDINARY RESTRICTIONS ON MEDICAL IMPORTATIONS.

Consul-General Henry Bordewich, of Christiania, advises that the sale of proprietary and patent medicines is prohibited in Norway. He writes:

Some medical preparations are manufactured and put up by physicians and druggists here and others are imported, but the formula for their manufacture has to be stated before they can be sold at the drug stores; otherwise physicians are forbidden to prescribe them. Individuals are not permitted to import any kind of medicines for their own use. I have consulted people well posted in these matters, so there is no mistake.

AMERICAN MOWING MACHINES FREE OF DUTY.

Consul E. S. Cunningham, of Bergen, calls the attention of the American exporters of mowing machines to a recent order of the finance department, according to which mowing machines are admitted free of duty into Norway until further notice. It is from the United States that all the mowing machines used in that country are imported, so this order will be of interest to manufacturers. It is a modification of the new tariff law of the Kingdom of Norway that went into effect on April 1, 1906.

RUSSIA.

HIGHER DUTIES ON INDIAN TEAS.

Russia has imposed retaliatory duties on tea from India and Ceylon as a result of the prohibition of Russian sugar by Great Britain under the agreement reached by European nations at the Brussels Sugar Convention. Russia has not retaliated in any way against any of the other nations which were parties to the convention, while India was not a party to it.

Sir Edward Grey, the British foreign secretary, stated in Parliament that the English Government has not been informed of the reason for

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Russia's action against tea from India and Ceylon, and that it did not know yet what action the United Kingdom would take in regard to the matter.

CUBA.

LOWER RATES ON PAPER AND BAGS.

Minister E. V. Morgan, of Habana, transmits to the Department of State a copy of the ruling of the Cuban treasury department regarding the classification of paper and paper bags manufactured from wood pulp.

Hitherto paper of this character has been classified under paragraph 161 of the customs tariff and has paid $4.186 per 100 kilos. By the recent decision it is placed under paragraph 153 and pays but $2.1875 per 100 kilos, a saving in duty of $2 per 100 kilos. The following is a translation of the treasury decision:

"By virtue of an inquiry made of this department with reference to the classification of paper manufactured from wood pulp, as also of bags made from such paper, the department has decided that the same should be classified under paragraph 153 of the tariff, inasmuch as the paper in question is manufactured from wood pulp, expressly provided for in that paragraph. Bags made of the aforesaid paper should be classified under paragraph 153 also, with a surcharge of 30 per cent when not printed and of 50 per cent when printed."

FREE ADMISSION FOR SHORT-HORN CATTLE.

Minister Morgan further reports that, under a ruling of the Cuban treasury department, dated June 22 and published in the Official Gazette of June 27, short-horn cattle are hereafter to be admitted into Cuba without the payment of duty, and are to be classified under section "C" of paragraph 184 of the customs tariff and regulations, under which Durham cattle, a term synonymous with short-horn, are already included. The duty on these cattle has been $8 per head. The treasury decision, after reciting the grounds on which it is based, concludes as follows:

"It is resolved: To consider short-horn cattle as included in the letter 'C' of paragraph 184 of the tariff, provided the importers duly prove their origin and comply with the other requisites and regulations in force on the subject."

SIGNATURES OF CONSIGNEES.

Minister Morgan transmits the following translation of two circulars recently issued by the Cuban treasury department and published in the Official Gazette on the 22d and 30th of June, respectively, regarding the necessity of attaching written instead of stamped signatures of the consignee or agent to bills of lading which accompany declarations for the clearance of imported merchandise:

It having been noted that some custom-houses accept bills of lading accompanying declarations without the written signature of the agent or consignee, being satisfied with their names printed thereon, this

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department calls your attention to this discrepancy, so that in the future you shall not accept such bills of lading when not duly signed and otherwise fulfilling all requirements of the law.

Inasmuch as previous to the date of circular No. 15, of the 20th instant, goods have been shipped under bills of lading with signatures stamped or printed thereon, and which up to the present have been improperly accepted by some custom-houses, taking into consideration the fact that certain kinds of goods can not be detained in the custom-house until the receipt of original bills of lading duly signed, because their decomposition would injure not only the importer but also the warehouses where stored, this department has decided that circular No. 15 above referred to shall not become effective until after thirty days from this date.

CERTIFICATION OF INVOICES BY CONSULS.

Under date of July 5 Minister Morgan also transmits the following treasury decision of the department of state and justice relative to consular certification of extra copies of invoices:

Inasmuch as certain consuls have refused to affix their official seals, free of charge, to extra copies of invoices in addition to the two required by Circular No. 23, of this department, of December 31, 1903, taking into account the decision of this department of April 15, 1903, and with the approval of the secretary of the treasury, I have decided that when shippers, in certifying an invoice, present another in addition to the two copies provided for in the circular above mentioned, you should admit the same and state in such copy that the original has been certified, as well as its serial number and date, affixing your seal of office free of charge.

INCREASED DUTY ON STARCH.

Minister Morgan reports to the Department of State, under date of July 6, 1906, that during the recent session of the Cuban Congress a law was enacted raising the import duty on starch from $1.40 per hundred kilogrammes to $3, but without altering the application of surcharges established by existing laws. Dextrines and glucose for industrial use continue, as heretofore, to pay a duty of $1.40 per hundred kilogrammes. The act reads as follows:

Paragraph 108 of the existing tariff, without detriment to the application of surcharges established by laws in force, is hereby modified as follows:

(a) Starch, $3 per 100 kilogrammes; (b) dextrine and glucose for industrial uses, $1.40 per 100 kilogrammes.

WOOD PULP PAPER FREE OF DUTY.

Another law announced that from July 11 there shall be admitted free of duty into Cuba paper made of wood pulp, in bobbins, bales, cases, and reams, unglazed, imported directly by publishing firms for their periodical publications. Previously only roll paper, such as is used by few newspapers on the island, enjoyed free admission.

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CANADA.

TARIFF ON ARCHITECTS' PLANS.

Consul R. S. Chilton, jr., of Toronto, advises that the Canadian government has adopted the following rules governing the entry and appraisement of architects' plans:

Rates of duty on drawings, blueprints, and building plans, 20 per cent ad valorem. Specifications, however, are free as "manuscript" when written or typewritten. Special plans of building or blueprints as substitutes therefor are to be valued for duty at charge usually made by architect for drawings without specifications. This charge may be fixed for duty purposes at 1 per cent of estimated cost of building to be erected. Detailed drawings or blueprints as substitutes therefor, if imported separately, are to be appraised at valuation of 1 per cent of estimated cost of such detail. When building is estimated to cost less than $10,000, plans or blueprints thereof may be appraised at usual charges for furnishing same, according to the special circumstances in each case, irrespective of the preceding rule. Blueprints or copies of building plans may be admitted at cost of production when duty has been once paid on original or copy in Canada. Blueprints of cars and machinery, being copies of standard designs, may be valued for duty at 75 cents per pound.

A number of large buildings in this locality are designed by American architects, adds the consul, the same being true of other parts of Canada. No doubt they will be called upon for further plans, especially for large buildings of modern construction, and the order will therefore be of interest to them.

NEWFOUNDLAND.

BOATS AND OUTFITS ADMITTED FREE.

The collector of customs, Port of St. Johns, has issued an act for the encouragement of the herring fishery and the better care of herring in Newfoundland. It provides for the granting under certain conditions, by the governor in council, of free entry of boats and outfits; of a subsidy to persons engaged in "drift-net" fishing for a continuous period of not less than two months; and of a bounty of 50 cents per barrel upon all herring cured and packed by bona fide residents according to the Scotch method.

MEXICO.

PORT REGULATIONS AND CHARGES—ANNOYING RULES.

Consul James A. Le Roy, of Durango, reports on the customs laws of Mexico, and especially as they are administered at border ports and applied to inland places. The consul says that the defects are those of administration rather than of the law. He describes annoying provisions as to fines that are arbitrarily imposed for failure to properly classify an article, although on a preceding occasion the article may have been entered as described in the invoice. This practice is said to be frequent at El Paso, Eagle Pass, and Laredo, which are border ports. This lack of uniformity in administration is not only annoying, but expensive to all parties concerned. The consul writes:

Mexico has adopted throughout the system specific duties, assessed almost entirely by weight. While this should conduce to simplicity

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of administration, it results in great inequalities under many of the schedules. To take an instance, all kinds of musical instruments pay 55 cents Mexican the legal kilogram, which means that a Stradivarius violin, for example, would enter for a trifling charge, while a $50 organ, weighing, perhaps, 400 pounds, cased, would have to pay more than its original value in duty alone. This operates against the sale of the cheaper-grade pianos, for which there should be an increasing sale in Mexico, while there are, in fact, a surprising number sold, considering conditions here.

Related with this matter, as bearing on the subject of mail-order business from the United States into Mexico (a business that is now growing considerably), is the charge which is made in the Mexican post-offices for delivery of packages coming by parcels post. Such packages if they come from Germany or England pay a uniform "delivery fee" ("derecho de entrega") of 5 cents Mexican; if from France they pay a uniform fee of 10 cents Mexican, regardless of weight in all these cases. But from the United States by treaty the delivery fee is 5 cents Mexican for the first pound (460 grams) and 1 cent additional for each 4 ounces (115 grams). On packages of only 1 pound or so this is of no importance, but packages often run to 10 and 11 pounds by parcels post, and then this charge constitutes in effect a discrimination against American mail-order business which is to be taken into account.

NICARAGUA.

REGULATIONS FOR INVOICES.

Vice-Consul A. O. Wallace reports from Managua that the following Nicaraguan custom-house law went into effect on June 5:

Consular invoices of any shipment must be in successive numbers—No. 1 and so on, according to the sheets necessary—and must bear date of embarkation or one previous to it, which will be compared with the corresponding bill of lading of same date and is to be sent at the same time according to provisions of article 3 of decree dated May 4, 1900, which says:

"No registry of merchandise will be verified unless three copies of consular invoice and same number of bills of lading are presented, nor if any bill of lading includes several invoices and different consignees. In case of difference of dates of invoices and bills of lading of one shipment, a fine, amounting to 50 per cent of the respective duties of such merchandise, will be imposed."

To avoid any unnecessary delays and fines to importers here, our exporters at home should strictly comply with the foregoing instructions.

HONDURAS.

FREE OF DUTY PERIOD EXPIRES.

Consul F. S. S. Johnson makes a report from Puerto Cortes that decree No. 139 of the Honduras Government having expired on March 29, certain goods which were admitted for five years free of all duty will now pay import taxes. The list includes carts, wagons, barges, oars, sheets of zinc, wire for fences (barb, etc.).

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COLOMBIA.

TWO PER CENT ADDED TO CUSTOMS RATE.

Consul P. P. Demers, of Barranquilla, advises that by executive decree of June 13 the President of Colombia has created a revenue for the destruction of the locust, which is ravaging throughout the country, to wit, 2 per cent on the final liquidation of import duties at the custom-houses.

This 2 per cent is additional to the duties already existing and will be collected at the custom-houses and remitted to a national bank, the Banco Central, for distribution, in conformity with executive instructions, among the various States affected by the pest. The decree reads that the new tax is a special rent, distinct from custom duties, and will take effect from the date of the publication of the decree.

BRAZIL.

TARIFF RATES REDUCED.

The Department of State is in receipt of cable advices from Ambassador Griscom, at Petropolis, stating that the Brazilian Government proclaimed, on July 4, a 20 per cent tariff reduction, to take effect July 1 and terminating December 31, 1906, in favor of the following goods emanating from the United States:

Flour, condensed milk, types of rubber, watches and clocks, inks (except for writing) varnishes, typewriters, refrigerators, scales, pianos, and windmills.

NEW ZEALAND.

PROPOSED CHANGES, AND EFFECT ON THE REVENUE.

The late premier of New Zealand announced that there would be several changes made in the tariff of that country at the next session of the New Zealand Parliament. The tariff, as a whole, would remain the same as now, the exact changes proposed being:

Article.	Present duty.	Proposed reduced duty.	Reduction of revenue.
Sugar	4s. 8d. per hundredweight	3s. per hundredweight	£69,058
Dried fruits	1d. and 2d. per pound	Free	24,050
Maizena and corn flour	¼d. per pound	do	1,495
Potatoes	20 per cent	do	3,255
Cotton goods	20 per cent and 10 per cent	10 per cent	15,549
Forfar and linens	20 per cent	Free	6,404
Tobacco	3s. 6d. per pound	2s. 2d. per pound	131,165

NOTE.—1d. = 2 cents; 1s. = 24 cents; £1 = $4.86.

Maizena and corn flour are the only farinaceous foods upon which the colony levies duty. Cotton goods to the extent of nearly one-half are free, and the above proposal simply represents a reduction on such of these goods as are now dutiable at 20 per cent. Certain classes of linen piece goods are at present free, and the reduction on forfar and

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linens will simplify trade. The colony in most years exports more potatoes than it imports, so that the abolition of the potato duty hardly affects the revenue to the extent estimated in the above table.

STRAITS SETTLEMENTS.

HIGHER EXPORT DUTY ON TIN.

Consul-General D. F. Wilber reports from Singapore that on June 1 the following higher export duty was imposed on tin, tin ore, and manufactured tin, with a 70 per cent rebate to Great Britain:

When the price of tin exceeds $31 per picul (picul=133⅓ pounds) up to $32, $10 duty; on a price of $32 to $33, $10.25 duty; with a graduated increase on up to $43 to $44 per picul, a duty of $14.50 is charged. Then for every additional $1 per picul in the price, 50 cents.

The duty will be reckoned on the price telegraphed daily from Singapore. A rebate is provided on tin won from rock when it can not be obtained therefrom without picking, blasting, or crushing. Such rebate, approved by the authorities, shall not exceed 50 per cent of the prescribed duty.

On tin ore exported under such guaranties as the resident may require that it be smelted in the colony of the Straits Settlements or in the United Kingdom, 70 per cent of the duty on tin. For tin ore exported without such guaranties, 70 per cent of the duty on tin, plus an additional duty of $30 per picul. Above prices are Straits currency, $1 being now equal to 56¾ cents United States gold.

METRIC SIGNS.

FRENCH RULES FOR ABBREVIATIONS.

The French minister of public instruction has decided that all teachers throughout France are in future to employ the following distinctive abbreviations for the various weights and measures: For denoting length—myriamètre, Mm; kilomètre, Km; hectomètre, Hm; décamètre, dam; mètre, m; décimètre, dm; centimètre, Cm, and millimètre, mm. For areas—hectare, ha; are, a, and centiare, ca or m^2. For measures of bulk (timber), décastère, das; stère, s or m^3, and décistère, ds. For measures of mass and weight—tonne, t; quintal métrique, q; kilogramme, kg; hectogramme, hg; décagramme, dag; gramme, g; décigramme, dg; centigramme, cg, and milligramme, mg. For measures of capacity—kilolitre, kl; hectolitre, hl; décalitre, dal; litre, l; décilitre, dl; centilitre, cl, and millilitre, ml. The use of the capital letters for the three largest denominations of length are intended to prevent confusion, and all the other abbreviations follow on uniform lines. The employment of full stops between the letters is officially abolished, and k. g. for kilogramme and m. m. for millimetre disappear.

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MACHINERY.

INCREASE IN EXPORTS.

PERSISTENT RIVALRY FOR MARKETS OF THE WORLD.

UNITED STATES MAKES THE BEST—GREAT BRITAIN SELLS THE MOST—INSTRUCTIVE COMPARISONS.

Of our manufactures machines and machinery constitute our premier export, amounting in 1904 to $81,577,600, being the largest export of any one country save the United Kingdom, the exports of which amounted to $102,531,800 in 1904. The fact that the United Kingdom leads us in the value of its exports of machines and machinery is wholly due to its large exports of textile machinery, a branch of the machine trade wherein we have no recorded export, while we are fourth on the list of countries to which the United Kingdom exports textile machinery, coming after Germany, France, and Italy, as will be seen in the statistics hereinafter given.

Machines and machinery constituting our largest export of manufactured articles, and being of that class of products which gives us promise of the greatest enlargement in the world's markets, it is considered apropos to give a short review for the benefit of our exporters of the present status of the trade, the kinds of machines and machinery which compose the same, the countries to which exported, and for comparative purposes the exports of like machines and machinery from the United Kingdom.

It is to be regretted that the classification of machines and machinery in French and German official publications does not lend itself to alignment with American and British machines and machinery in the detailed statement herewith given, so that the best that could be done was to give them a place in the supplementary table showing the total exports by countries. In the following table the order in

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which the exports are detailed in the British official returns is maintained:

Exports of machines and machinery from the United Kingdom and the United States in 1904.

Description of machinery and whither exported.	United Kingdom.	United States.
STEAM ENGINES.		
Locomotives:		
Argentina	$1,381,100	$137,500
Egypt	633,200	.....
Japan	826,600	624,900
Portuguese East Africa	255,900	11,800
Brazil	168,400	130,000
Chile	144,200	36,800
Mexico	113,400	1,934,500
Spain	110,000	2,700
China	91,700	40,000
Peru	32,700	199,600
All other foreign countries	275,900	361,400
Total	3,583,100	3,479,200
British possessions—		
British India	2,613,000	.....
Natal	1,525,800	9,100
Cape of Good Hope	870,800	
Australasia	474,100	5,500
Straits Settlements and Ceylon	163,100	.....
Canada	3,800	1,767,600
All other British possessions	205,300	.....
Total British possessions	5,855,900	1,782,200
Total locomotives	9,389,000	5,261,400
Agricultural engines:		
Germany	1,181,700	.....
Russia	888,200	.....
Egypt	610,300	.....
Argentina	367,500	.....
Italy	302,700	.....
France	78,900	.....
Netherlands	68,200	.....
Chile	49,200	.....
All other foreign countries	397,300	.....
Total	3,944,000	.....
British possessions—		
Australasia	395,200	.....
British India	67,700	.....
Cape of Good Hope	66,300	.....
All other British possessions	55,800	.....
Total British possessions	585,000	.....
Total agricultural engines	4,529,000	.....
Other descriptions of steam engines:		
Egypt	623,500	7,400
Japan	496,400	157,000
Argentina	482,900	88,400
Italy	473,600	8,700
Brazil	338,800	225,600
Russia	335,400	12,800
Germany	319,800	64,400
Netherlands	298,900	8,800
Spain	283,300	12,300
Portuguese East Africa	222,000	6,100

Description of machinery and whither exported.	United Kingdom.	United States.
STEAM ENGINES—CON.		
Other descriptions of steam engines—Con.		
Belgium	$221,500	$9,000
Philippines	193,400	49,900
Chile	191,300	53,400
Mexico	168,900	447,900
United States	148,500	.....
France	139,700	26,700
United Kingdom	.....	417,300
All other foreign countries	1,085,500	525,900
Total	6,022,900	2,116,100
British possessions—		
British India	1,568,500	37,100
Australasia	999,100	179,200
Cape of Good Hope	794,300	133,000
Natal	326,600	.....
Straits Settlements and Ceylon	215,700	.....
Canada	74,600	773,800
All other British possessions	549,000	.....
Total British possessions	4,527,800	1,123,100
Total other descriptions of steam engines	10,550,700	3,239,200
MACHINES AND MACHINERY OTHER THAN STEAM.		
Agricultural machines and implements:		
Argentina	1,085,200	3,996,500
Germany	755,400	1,579,000
Russia	695,700	3,342,000
France	595,700	3,063,800
Italy	220,900	137,900
Netherlands	205,100	231,200
Egypt	174,000	16,600
Roumania	144,300	164,400
Peru	140,200	128,900
Algeria	98,900	63,600
Denmark	94,400	614,700
Mexico	88,600	369,400
United Kingdom	.....	1,924,200
All other foreign countries	330,400	1,461,100
Total	4,528,700	17,093,400
British possessions—		
Australasia	402,600	1,555,300
South Africa	170,900	673,800
British India	98,800	64,600
Canada	.....	3,861,900
All other British possessions	62,800	700
Total British possessions	735,100	5,656,300
Total agricultural machines and implements	5,263,800	22,749,700

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Exports of machines and machinery from the United Kingdom and the United States in 1904—Continued.

Description of machinery and whither exported.	United Kingdom.	United States.
MACHINES AND MACHINERY OTHER THAN STEAM—con.		
Sewing machines:		
Russia—		
Northern ports	$3,204,600	.....
Southern ports	1,185,500	.....
Total	4,390,100	$37,600
France	1,211,500	100,700
Germany	807,400	1,021,900
Italy	725,700	28,100
Austria-Hungary	534,000	6,700
Spain	533,000	12,900
Turkey	391,800	.....
Sweden and Norway	325,200	600
Belgium	318,300	30,700
Argentina	180,100	657,700
Portugal	158,700	700
Netherlands	115,800	438,200
Brazil	107,000	174,900
Greece	93,100	100
Algeria	62,800	1,000
Mexico	.....	586,900
Cuba	.....	370,400
Japan	.....	167,900
United Kingdom	.....	1,316,800
All other foreign countries	593,200	596,400
Total	10,547,700	5,550,200
British possessions—		
British India	242,900	19,000
South Africa	145,600	19,100
Australasia	16,600	480,200
Canada	.....	345,600
All other British possessions	88,900	61,400
Total British possessions	494,000	925,300
Total sewing machines	11,041,700	6,475,500
Electrical machinery:		
Japan	286,200	1,239,900
Argentina	186,400	154,700
Brazil	81,900	215,300
France	55,100	276,600
Russia	44,400	35,000
Spain	33,600	20,600
Netherlands	31,200	22,200
Portuguese East Africa	30,700	.....
China	27,300	11,800
Germany	26,300	115,900
Chile	22,900	20,500
Egypt	14,600	5,500
Italy	.....	90,800
Mexico	.....	1,057,300
Peru	.....	90,800
United Kingdom	.....	885,100
All other foreign countries	172,000	471,400
Total	1,012,600	4,713,400
British possessions—		
British India	440,500	197,400
Australasia	301,700	282,000
Cape of Good Hope	262,800	161,400
Natal	200,100	
Straits Settlements	58,500	.....
Canada	21,900	2,023,900
All other British possessions	247,100	31,100
Total British possessions	1,532,600	2,695,800
Total electrical machinery	2,545,200	7,409,200

Description of machinery and whither exported.	United Kingdom.	United States.
MACHINES AND MACHINERY OTHER THAN STEAM—con.		
Mining machinery:		
Portuguese East Africa	$211,000	.....
Sweden and Norway	181,600	.....
Spain	149,000	.....
Chile	84,300	.....
Brazil	55,100	.....
Mexico	43,400	.....
China	32,200	.....
All other foreign countries	385,700	.....
Total	1,142,300	.....
British possessions—		
Cape of Good Hope	1,159,200	.....
Australasia	700,900	.....
Natal	475,100	.....
British India	335,900	.....
West African possessions	327,600	.....
Canada	68,500	.....
All other British possessions	42,500	.....
Total British possessions	3,109,700	.....
Total mining machinery	4,252,000	.....
Textile machinery:		
Germany	4,587,400	.....
France	2,621,200	.....
Italy	1,878,000	.....
United States	1,752,500	.....
Belgium	1,611,400	.....
Russia	1,443,500	.....
Brazil	894,000	.....
Mexico	662,900	.....
Japan	659,500	.....
Netherlands	576,800	.....
Spain	566,700	.....
Austria-Hungary	320,300	.....
Sweden	196,600	.....
Portugal	174,300	.....
Argentina	138,700	.....
Turkey	123,100	.....
Greece	99,800	.....
China	99,300	.....
All other foreign countries	471,600	.....
Total	18,877,600	.....
British possessions—		
British India—		
Madras	2,776,900	.....
Bombay	2,050,300	.....
All other	74,400	.....
Total	4,901,600	.....
Canada	247,300	.....
Australasia	76,900	.....
All other British possessions	254,000	.....
Total British possessions	5,479,800	.....
Total textile machinery	24,357,400	.....
Machinery of all other descriptions:		
Russia	1,782,700	$128,300
France	1,778,900	444,900

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Exports of machines and machinery from the United Kingdom and the United States in 1904—Continued.

Description of machinery and whither exported.	United Kingdom.	United States.
MACHINES AND MACHINERY OTHER THAN STEAM—CON.		
Machinery of all other descriptions—Con.		
Germany	$1,572,400	$649,300
Argentina	1,045,900	572,500
Egypt	881,900	29,300
Japan	869,800	667,700
Sweden and Norway	811,900	126,600
Belgium	793,300	224,100
Netherlands	768,900	131,400
United States	712,600	.....
Italy	664,400	163,600
Brazil	654,200	254,300
China	624,500	151,700
Spain	611,800	81,000
Chile	598,600	233,300
Dutch Indies	583,600	36,500
Philippines	324,700	140,200
Mexico	305,900	3,524,400
Portugal	255,100	16,000
Portuguese East Africa	230,300	93,800
Turkey	209,300	10,200
Denmark	184,300	47,800
Cuba	172,300	700,400
Siam	139,700	.....
Austria-Hungary	137,800	55,600
Uruguay	73,000	57,000
United Kingdom	.....	2,780,200
All other foreign countries	679,200	1,146,800
Total	17,412,000	12,466,900

Description of machinery and whither exported.	United Kingdom.	United States.
MACHINES AND MACHINERY OTHER THAN STEAM—CON.		
Machinery of all other descriptions—Con.		
British possessions—		
British India—		
Bombay	$1,816,300	.....
Bengal	1,683,900	.....
Burma	981,600	.....
Madras	304,100	.....
Total	4,785,900	$221,400
Australasia	3,358,900	1,042,300
Cape of Good Hope	1,506,300	1,188,200
Natal	934,900	
British West Indies	440,000	61,200
Straits Settlements	410,300	.....
Hongkong	371,900	39,600
Canada	328,600	5,557,000
Ceylon	235,600	.....
West African possessions	165,100	.....
All other British possessions	658,500	56,100
Total British possessions	13,191,000	8,165,800
Total machinery of all other descriptions	30,603,000	20,632,700

EXPORTS SPECIAL TO THE UNITED STATES.

The following American machines and machinery are not included in the foregoing statement. British official statistics make no mention of any similar machines and machinery as being exported from the United Kingdom. If there are any such British machines, which is very unlikely, whatever amounts thereof are exported are included under the head of "Machinery of all other descriptions."

Machines, and whither exported.	1904.
Cash registers:	
Germany	$538,900
United Kingdom	456,900
Canada	188,000
Austria-Hungary	144,000
Australasia	63,300
Denmark	60,500
Sweden and Norway	53,800
British Africa	50,500
Italy	39,700
Russia	34,600
France	30,700
Argentina	25,900
Belgium	20,000
All other countries	123,400
Total	1,830,200
Laundry machinery:	
United Kingdom	167,300
Germany	81,600
Canada	65,400
Australasia	58,900
Belgium	41,400
Netherlands	27,500
All other countries	111,800
Total	553,900

Machines, and whether exported.	1904.
Metal-working machinery:	
United Kingdom	$1,121,800
Germany	886,800
France	369,500
Belgium	281,800
Canada	275,600
Mexico	219,600
Russia	127,200
Sweden and Norway	70,500
Austria-Hungary	68,800
Italy	52,200
Netherlands	55,200
Argentina	37,600
All other countries	160,100
Total	3,716,700
Printing presses:	
United Kingdom	626,000
Canada	353,400
Mexico	75,500
France	63,800
Argentina	42,800
Australasia	31,800
Italy	47,300
All other countries	156,100
Total	1,396,700

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Exports special to the United States—Continued.

Machines, and whither exported.	1904.
Pumps and pumping machinery:	
United Kingdom	$810,500
Mexico	367,400
Canada	288,500
British Africa	179,500
Australasia	137,200
Cuba	88,800
France	80,500
Argentina	78,600
Russia	76,700
Germany	73,300
Netherlands	58,100
British India	52,500
Japan	37,900
Egypt	32,900
Portuguese Africa	20,600
All other countries	320,400
Total	2,703,400
Shoe machinery:	
United Kingdom	419,000
Canada	112,400
Australasia	111,800
Netherlands	110,100
Shoe machinery—Continued.	
France	$90,800
Germany	65,600
Argentina	53,100
Switzerland	41,900
All other countries	67,200
Total	1,071,900
Typewriting machines:	
United Kingdom	1,049,800
Germany	858,000
France	343,000
Russia	282,700
Mexico	234,000
Canada	185,300
Australasia	164,900
Italy	84,700
Netherlands	72,800
Argentina	51,700
Switzerland	48,300
All other countries	1,161,900
Total	4,537,100

RECAPITULATION.

Where machines are sent.	United Kingdom.	United States.
STEAM ENGINES.		
Locomotives:		
To foreign countries	$3,533,100	$3,479,200
To British possessions	5,855,900	1,782,200
Total	9,389,000	5,261,400
Agricultural engines:		
To foreign countries	3,944,000	
To British possessions	585,000	
Total	4,529,000	
All other steam engines:		
To foreign countries	6,022,900	2,116,100
To British possessions	4,527,800	1,123,100
Total exports of all other steam engines	10,550,700	3,239,200
Total	24,468,700	8,500,600
MACHINES AND MACHINERY OTHER THAN STEAM.		
Agricultural machines and implements:		
To foreign countries	4,528,700	17,093,400
To British possessions	735,100	5,656,300
Total	5,263,800	22,749,700
Sewing machines:		
To foreign countries	10,547,700	5,550,200
To British possessions	494,000	925,300
Total	11,041,700	6,475,000
Electrical machinery:		
To foreign countries	1,012,600	4,713,400
To British possessions	1,532,600	2,695,800
Total	2,545,200	7,409,200

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Exports special to the United States—Continued.

RECAPITULATION—Continued.

Where machines are sent.	United Kingdom.	United States.
Mining machinery:		
To foreign countries	$1,142,300	.....
To British possessions	3,109,700	.....
Total	4,252,000	.....
Textile machinery:		
To foreign countries	18,877,600	.....
To British possessions	5,479,800	.....
Total	24,357,400	.....
Machinery of all other descriptions:		
To foreign countries	17,412,000	$12,466,900
To British possessions	13,191,000	8,165,800
Total	30,603,000	20,632,700
MACHINERY SPECIAL TO THE UNITED STATES.		
Cash registers:		
To foreign countries	.....	1,625,100
To British possessions	.....	205,100
Total exports of cash registers	.....	1,830,200
Laundry machinery:		
To foreign countries	.....	419,400
To British possessions	.....	134,500
Total	.....	553,900
Metal-working machinery:		
To foreign countries	.....	3,413,700
To British possessions	.....	303,000
Total	.....	3,716,700
Printing presses:		
To foreign countries	.....	991,800
To British possessions	.....	404,900
Total	.....	1,396,700
Pumps and pumping machinery:		
To foreign countries	.....	2,021,400
To British possessions	.....	682,000
Total	.....	2,703,400
Shoe machinery:		
To foreign countries	.....	747,700
To British possessions	.....	324,200
Total	.....	1,071,900
Typewriting machines:		
To foreign countries	.....	4,179,800
To British possessions	.....	357,300
Total	.....	4,537,100
Grand total exports of machines and machinery:		
To foreign countries	67,020,900	58,818,100
To British possessions	35,510,900	22,759,500
Grand total	102,531,800	81,577,600

LOCOMOTIVES AND OTHER STEAM ENGINES.

It will be seen by the foregoing statement that the exports of British locomotives in 1904 amounted to $9,389,400, while the exports of

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American locomotives amounted to only $5,261,400. This difference was wholly due, regardless of the merits of the machines, to the large British exports to British India, British Africa, Australasia, and Argentina, whose railways are controlled by British interests. Even with Argentina included, the exports of American locomotives to "foreign countries" very nearly equaled those of the United Kingdom. Our large exports of locomotives to Canada ($1,767,600 against $3,800 British) is accounted for by the fact that Canadian railways are worked on the "American system," as, indeed, are all Canadian industries.

The manufacturers who first introduce their locomotives into any country, especially those countries which have no forcible public opinion to demand, and enforce the demand, for the best service, realize great advantages thereby. Engineers and firemen become habituated to machines, and thus a prejudice of great moment exists against any change. Indeed, the engineers and firemen, in such cases, have been "exported" to run, and show the natives how to run, the locomotives. Besides, the capital which built the roads, and which in most cases still controls the roads, is British, and of course intensely interested in British rolling stock.

For these as well as for other reasons not necessary to explain our manufacturers, while pushing out-of-date locomotives out of the way with their up-to-date machines, should anticipate the building of new railways, and the change of the old, where such exist, in every country, and prepare the way for the acceptance of their locomotives and general rolling stock. Our exports of locomotives to Mexico, Canada, and Japan ($1,934,500, $1,767,600, and $624,900, respectively) show that all countries desiring to keep abreast of the times and anticipate the wants of the future will, if given the opportunity, accept the appliances which have worked such wonders in railroads in the United States. Now that Americans are building the railways of many countries it follows that American rolling stock in general must, of necessity, be secured to work out the full measure of railway possibilities.

While the United Kingdom exported steam agricultural engines to the value of $4,529,000 in 1904, there is no special record of like engines from the United States.

British steam engines, other than locomotives and agricultural, were exported in 1904 to the value of $14,550,700, against $3,239,200 like engines exported from the United States.

Steam engines of all sorts (locomotives, agricultural, and other) constitute but a very small part of our exports of machines and machinery, amounting in 1904 to only $8,500,600, against the export of like engines from the United Kingdom valued at $24,468,700.

AGRICULTURAL MACHINES AND IMPLEMENTS.

Passing from steam engines we come to agricultural machines and implements, wherein our exports in 1904 amounted to $22,749,700, against an export of only $5,263,800 of British agricultural machines and implements. Herein our exports to Argentina ($3,996,500) are the largest to any one country, from which it would seem that the agriculturists of that Republic, unlike its railway interests, are free to purchase their appliances in that market which gives them the appliances most suitable to their needs. Canada comes next to Argentina as our best customer for agricultural machines and implements

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($3,361,900, against nil from the United Kingdom), followed by Russia ($3,342,000), and France ($3,063,800), the United Kingdom itself coming fifth on the list of consumers of American agricultural machinery and implements, our exports thereto in 1904 amounting to $1,924,200.

The manufacture of American agricultural machines and implements having sprung from our own necessities—the subjugation of a continental wilderness in less than a century, which the Old World labor methods could not have accomplished in a thousand years—and having filled our own severe requirements, it follows that they will be accepted by all peoples who desire to wring from their lands all that is possible with the least expenditure of time and labor. The greatest drawback to the universal accceptance of our agricultural machines and implements is the ignorance of the agriculturists of a large part of the world in regard to their proper handling and use. Hence our best customers are the most advanced agriculturists, viz, Argentinians, Canadians, Russians, French, British, Germans, Australasians, Danes, etc. The world of agriculture, therefore, belongs to our manufacturers of agricultural machines and implements, for each year adds to the intelligence of the world's workers, and this, in turn, will increase the demand for our appliances.

SEWING MACHINES.

Sewing machines being as much of an American invention as are agricultural machines and implements—more so, in fact—it is disappointing to find that the exports of sewing machines from the United Kingdom in 1904 were nearly double in value the exports from the United States, and would have been very much more than double were it not for our exports to the United Kingdom itself ($1,328,300), Australasia, and Canada. About 80 per cent of our sewing machines exported in 1904 went to the United Kingdom ($1,328,300), Germany ($1,021,800), Argentina ($657,700), Mexico ($586,900), Australasia ($525,500), Canada ($385,600), Cuba ($370,400), and Japan ($167,900); a total to those countries of $4,838,100, against $1,004,000 from the United Kingdom.

In the face of this showing it seems inexplicable, on any other theory than some understanding between American manufacturers proper and the American manufacturers who have established factories in the United Kingdom, that British sewing machines were exported in 1904 to the following countries in amounts stated: To Russia $4,390,100, against $37,600 for the United States; to France $1,211,500, against $143,700 for the United States; to Italy $725,700, against $28,100 for the United States; to Austria-Hungary $534,000, against $6,700 for the United States; to Spain $533,000, against $12,900; to Turkey $391,800, against nil for the United States; to Sweden and Norway $325,200, against $600 for the United States; to Belgium $318,300, against $30,700 for the United States—a total of British sewing machines to the eight countries named of $8,429,600, against $260,300 worth from the United States thereto. That the United Kingdom should import $1,328,300 worth of our sewing machines in 1904—being the largest importer thereof among the nations—and in the same year sell $4,390,100 worth of her sewing machines to Russia against our $37,600 worth argues that some understanding must exist among the American manufacturers

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in the United States and the "American" manufacturers in England on the division of territory, or that a class of sewing machines so inferior to anything produced in the United States must be turned out in England for the Russian trade. In any case, the subject is worthy the special attention of our manufacturers, for their foreign trade at present is not one-half what it should be and would be were the trade properly exploited.

ELECTRICAL AND MINING MACHINERY.

Our exports of electrical machinery in 1904 were threefold those from the United Kingdom—$7,409,200 and $2,545,200, respectively. Our largest exports were to Canada ($2,023,900), Japan ($1,239,900), and Mexico ($1,037,300). This not only shows the advanced position of the development of these three countries, but it shows that the trend of all countries eager to develop their industrial resources is toward the employment of electrical machinery. Unless some power superior to electrical energy should supervene, electrical machinery and electrical appliances of all kinds will dominate the industrial future. It therefore only remains for American electricians to cater to the world's requirements to hold the lead they have already won in this great branch of the machine industry. When the amount of electric machinery in use in the United States is taken into consideration, if such were possible of conception, that we should have an export thereof valued at $7,409,200 in 1904 is really wonderful, and that the United Kingdom should be our third largest consumer thereof shows that our greatest markets are in the most advanced countries, these only being capable of handling this new power and reducing it to the industrial uses.

It is to be regretted that no special record is made in our official publications of mining machinery exports, for undoubtedly we have a large export thereof, for that which has accomplished the requirements of our own miners—who in this respect lead the world—must also appeal to the miners of other advanced countries. There is, therefore, no way by which the value of the exports of our mining machinery or the countries to which it is exported can be given. It is, however, likely that most of the machinery not specially designated by name exported to South Africa, Australia, Mexico, etc., is mining machinery. The exports of mining machinery from the United Kingdom in 1904 were valued at $4,252,000, of which $3,109,500 went to British colonies, South Africa ($1,634,300) and Australasia ($700,900) taking the greater portion thereof, Portuguese East Africa coming next.

TEXTILE MACHINERY.

In this important branch of the machinery industry the United Kingdom is dominant, and from appearances is likely to remain so, as the most advanced manufacturing countries in nearly all other products are her best customers. Long before other countries had advanced in manufactures the United Kingdom was forced into this textile machine manufacture to supply her own vast wants, and these once supplied, she was ready to supply the wants of other countries, who found it more convenient to purchase their textile machinery and produce their own cloths rather than undergo the expense and delay of

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manufacturing their own textile machinery, until now both the manufacturing countries and the countries just developing their manufactures rely upon British textile machinery to a very large extent—to the extent of $24,357,400 in 1904. The statement showing the exports of textiles by countries is valuable to our exporters in general, as it shows the countries of the world either advanced or advancing in textile manufactures, for these are almost the first of the advanced industries which every country aims to develop for the purpose of supplying its own wants.

MACHINERY SPECIAL TO THE UNITED STATES.

With the statement showing the exports of machinery of all other descriptions—$30,603,000 British against $20,632,700 American—we come to those manufactures grouped undea the following caption.

The kinds and value of these machines and machinery exported in 1904 were as follows: Cash registers, $1,830,200; laundry machinery, $553,900; metal working machinery, $3,716,700; printing presses, $1,396,700; pumps and pumping machinery, $2,703,400; shoe machinery, $1,071,900; typewriting machines, $4,537,100; a total of $15,809,900. If the United Kingdom manufactures any similar machines for export the fact is not recorded in its official publications. As, however, the United Kingdom is the largest consumer among the nations of these machines—our export there to in 1904 amounting to $4,733,300, or 30 per cent of the whole export—it would tend to show such machines are not manufactured therein.

Many of these manufactures special to the United States would have been called "Yankee notions" in the past, but the Old World has come to realize that nothing is manufactured in the United States for notional purposes, but that every machine and other product are invented and manufactured for eminently practical purposes; hence the growing eagerness of the workers and producers of the world to secure American appliances, feeling assured that those appliances having proved satisfactory in the United States must be superior to the ancient appliances to which they are accustomed; hence the foregoing machines and machinery special to the United States are a very important part of the whole trade, and it only requires familiarity with their uses to bring them into general favor.

This teaching the world how to handle American appliances—the simplest thing to do when once understood—should be considered a part of our export trade, not only in these machines and machinery "special to the United States," but in nearly all classes of machines and machinery. We who have grown up with such machines, as it were, and are as familiar therewith as is the Old World laborer with the old-fashioned plow and spade, are apt to forget this instructive "part of the trade," and think our whole duty performed when we take orders for the goods and ship them to their destination; but if a good machine is spoiled by clumsy and ignorant handling, it were better that we never sold it abroad, for under such conditions the machine is always blamed.

Having given in the foregoing statement the exports of the several machines to the several countries, the following supplementary table, showing the exports of machines and machinery from the United King-

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dom, France, Germany, and the United States, will give our manufacturers a condensed view of the whole trade.

Exports of machines and machinery from the United Kingdom, France, Germany, and the United States to the several countries in 1904.

Countries.	Exported from—			
	United Kingdom.	France.	Germany.	United States.
British India	$15,054,800	.....	$147,300	$592,100
Russia	9,580,000	$598,900	7,645,300	4,076,500
Germany	9,249,800	496,300	.....	5,934,700
British South Africa	8,838,700	.....	532,200	2,414,900
Australasia	6,726,000	.....	393,600	4,112,400
France	6,476,000	.....	4,301,800	4,891,000
Argentina	4,817,900	45,700	1,025,800	5,897,000
Italy	4,313,500	287,300	3,846,500	653,000
Belgium	2,944,500	1,849,500	2,797,700	607,000
Egypt	2,937,500	135,900	421,500	91,700
Japan	2,638,500	.....	842,700	2,895,300
United States	2,613,100	34,700	1,499,600	.....
Brazil	2,299,300	52,700	369,100	1,000,100
Netherlands	2,065,100	.....	119,000	1,150,500
Spain	2,287,100	774,500	2,532,800	129,500
Sweden and Norway	1,515,300	.....	1,607,200	251,500
Mexico	1,331,100	12,900	373,400	8,813,000
Chile	1,090,500	39,300	457,700	334,000
Straits Settlements and Ceylon	1,083,200	.....	.....	.....
Austria-Hungary	982,100	.....	5,004,900	265,100
Portuguese East Africa	949,900	.....	.....	132,300
China	875,000	14,200	290,800	203,500
Canada	744,700	.....	116,600	15,298,400
Turkey	724,200	56,400	216,700	10,200
Portugal	588,100	51,100	450,000	16,700
Dutch Indies	533,600	8,900	651,600	36,500
Philippines	518,100	.....	19,800	190,100
British West Africa	327,600	.....	21,400	.....
British West Indies	605,100	.....	11,900	61,200
Hongkong	371,900	.....	449,100	39,600
Denmark	278,300	.....	563,800	723,000
Cuba	172,300	.....	273,200	1,159,600
United Kingdom	.....	514,200	5,063,700	11,974,800
All other countries	6,999,000	[a]6,009,200	3,928,900	8,122,800
Total exports	102,531,800	10,981,700	46,005,600	82,078,000

[a] To Switzerland, $435,238; balance to French colonies, Algeria, and Tunis, chiefly.

AUTOMOBILES FOR SCOTLAND.

Consul J. N. McCunn reports from Dunfermline that there are no importers of motor cars in that consular district of Scotland, and all the cars in use are British made. But there is a growing demand there for motor cars for touring and business purposes, and the consul sends a list of the firms dealing in automobiles in Dunfermline and adjoining towns. These can be secured from the Bureau of Manufactures. The consul adds that it is practically useless to sell foreign-made cars there by remote agencies or catalogues, and that agents should be constantly in the field, so as to give prospective purchasers every opportunity to test the merits of their cars.

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COTTON.

GROWTH AND MANUFACTURE.

FINER GOODS FOR INDIA.

THE UNITED STATES NOW LAGS BEHIND IN THIS GREAT TRADE.

Consul William T. Fee, of Bombay, makes an able presentation of the great market in India for cotton fabrics, explaining to American manufacturers some trade methods necessary to gain a stronger foothold in that market. The consul writes:

During the year 1904–5 there was imported from the United States into India cotton manufactures as follows:

Piece goods.	Yards.	Value.
Gray, unbleached	4,097,715	$325,910
White, bleached	34,482	2,470
Colored or printed	21,050	2,701
Total	4,153,247	331,081

This is exclusive of raw cotton, or shipments that may have been indirect by way of Europe, the national identity of which was lost in transshipment. During the same period there was shipped into India 192,554 hundredweight of raw cotton at the value of $2,128,460. This was substantially all American cotton, but as 65 per cent of it went in English ships, and though she did not grow a boll of it, yet in the Blue Book of the custom-house England is given the credit for it.

During the 1904–5 fiscal year the five countries, Austria-Hungary, Belgium, Germany, Holland, and Italy, each sold to India, in round numbers, $1,250,000 in value of cotton manufactures, which, together with that imported from all other countries (except England), makes a value of $7,787,190. This sum added to $118,658,720, the amount of the value imported from the United Kingdom, together with $2,128,460, value of raw cotton imported, gives a total sum of $128,574,370, which was India's last year's payment to foreign countries on account of cotton purchases.

The amount of importations of American piece goods into India is exceedingly meager. This unenviable position is doubly aggravated when compared with our relative standing as a manufacturing nation, together, too, in view of the fact that America grows 85 per cent of the world's cotton crop, and that we supply the bulk of our competitors with by far the largest part of their raw materials. We can and should sell in India on an equal footing with England and every other nation, yet up to this time we have practically left altogether alone the world's biggest market.

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AMERICA SHOULD HAVE A LARGER SHARE.

We sell more goods in this particular consular district than we buy, yet this is quite the contrary with regard to all India, as the aggregate purchases are fully six times more than the sales. There is no good reason why this condition should exist and still less why it should continue. Why it does is largely due to causes within ourselves and under our own control.

We have not yet prepared ourselves to make what the foreign market wants. We pay heavy transportation charges to foreign ships while we should furnish our own vessels. Our lack of knowledge as to packing and shipping details to foreign markets, our ignorance of foreign customs regulations, requirements of trade, and the nature and character of goods needed; our aversion to extend credit accommodations; the absence of a supply of properly trained commercial American representatives to cover, study, and manage the foreign field; our want of a more perfect selling system for reaching the foreign consumer at a reasonable cost, and one that will adequately safeguard the interests of the buyer as well as those of the seller, and at the same time measurably reduce the opportunities for the practice of fraud and dishonest dealings—these are some of our hindrances to success in foreign markets. Doubtless they will gradually disappear before the well-directed intelligent effort and true American push.

Not more than 6 per cent of the American export of cotton is in a manufactured form, yet we grow three-fourths of the world's supply of cotton and furnish our competitors with the raw material, thereby losing the profits of the capital and the employment to labor that would result from such a vast world's industry. There is something radically wrong with this condition of the cotton trade. Did we manufacture the bulk of the cotton that we grow and export we would thereby control and supply the world's cotton market, giving profitable investment to millions of capital, employment to a vast army of labor, build a half dozen Manchesters within our borders, and furnish the cargo to an American merchant marine.

WHAT CAN BE DONE.

The fact is that we can now manufacture better cotton cloth yard for yard and pound for pound; and with our vast facilities, home-grown cotton, our inventive genius, and superior machinery we can do it at less cost than can be done elsewhere, excepting where higher wages interfere. Personally, the day would be welcomed when our competitors would find other sources from which they would obtain their raw cotton and would cease buying from America, thereby forcing us to manufacture our own crop and enter, as we have not yet done, in dead earnest into a competition for our proper share of the world's market.

We have made little if any effort to claim a proper share of the cotton market of India. The few American cotton goods that are imported here, such as sheetings and drills, which are sought when a good article is desired, actually sell themselves. We should not expect our foreign competitors to sell them for us. If an English or European house accepts an order from a local or native firm for American goods it expects a much larger profit than if it filled the order from its own

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home house, and nine times out of ten it would send the sample to its home house for duplication.

During late years the Britisher has been quietly doing some Empire building. He has constructed about India a living wall of "official influence" that protects the trade for the home country more effectually than any system of tariff legislation could possibly do. The post-office, post roads, telegraph lines, and canals, the great steamship companies that carry the English mails and control shipping, the vast Indian army and navy marine, the extensive railroads, owned and controlled by the Government, the port trusts and dock systems, the various British-Indian governments, the civil service, chambers of commerce, agricultural boards, the tea associations, the educational boards, and the State church, the immense amount of British capital invested in India—all these Government or semigovernment bodies with their dependencies and followings, directly or indirectly under the control of the Government, altogether form an "official influence" that knows but one market.

PERMANENT BRANCH HOUSES NEEDED.

To successfully meet this ever-present influence requires our most intelligent, constant, and persistent efforts. Price lists, catalogues, and trade literature sent through the mails are of little worth in obtaining trade. The spasmodic effort of an occasional traveling salesman, combining globe trotting with a business trip when trade is a bit dull in America and some overproduction is desired to be worked off, proves a disappointment. The employment of local native agencies have not generally been successful.

My observation, after some years' experience in India, is that the American exporter or manufacturer is succeeding best in India who has established a branch house under the personal control and management of an intelligent, experienced, and well-paid staff. There is not an American business house in India whose business would survive the present calendar year did it to-day withdraw its American staff.

The vast cotton market of India is worthy of our most serious consideration and intelligent effort. We should have such a reasonable share of it as becomes a great producing and manufacturing people. The demand is here and it is clearly defined. It remains for us to say whether we shall spin and weave for the world's market nature's abundant gift to us or shall we continue to grow only and permit another to collect the profits of our toil.

INDIA BUSY PRODUCING COARSE COTTON GOODS.

Mr. Carns, a well-known cotton manufacturer in Lancashire, England, recently returned from a tour in India, made for the purpose of inspecting the cotton industry in that country. He reports it as being in a particularly flourishing condition, with operatives employed day and night. The India mills run twenty-four hours a day with two shifts. Mr. Carns says that fine weaving is an absolute failure and that two or three firms who have experimented with Egyptian and American cotton did not achieve success. Hand looms are largely used, and in the province of Bengal alone, populated by 80,000,000 people, there are

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no fewer than 400,000 of these looms—all of a very antiquated style. Mr. Carns says that English manufacturers should make finer goods for India, as it is no use to compete in the coarser class of goods because of the low wages paid in India. What Mr. Carns says for the benefit of the British manufacturers would also apply to American producers.

GERMAN COTTONS FOR THE FAR EAST.

A correspondent of the Bulletin of the American Trade Association in Berlin states that leading Rhenish and Westphalian firms are planning a special meeting, to be held in Frankfort toward the end of this month, for the purpose of considering the best way of introducing German cotton prints to the Chinese and Japanese markets. A preliminary meeting was held lately at Dusseldorf, where the conviction was very decidedly expressed that the intention of the German Government to send out a commission to study trade prospects in China for German manufacturers was not practical, probably owing to the loss of time before results would be made known to the trade.

MILL ACTIVITY.

KOBE BECOMING A SECOND MANCHESTER.

Consul Hunter Sharp, writing from Kobe, says that raw cotton forms the largest single item of import into Japan, its manufacture being also the most important industry. He continues:

Japan having seen that Great Britain, though not a cotton producing country, spins and weaves that staple for about 50 per cent of the people of the world, and having seen that many of the conditions in the two countries are parallel no doubt wishes to profit by the example of her prosperous ally. Thus cotton mills have been established throughout this country, more particularly in the Kobe district, and in these American and other cottons are transformed by cheap labor into fabrics which not only go toward supplying the home demand, but in certain lines are also largely exported.

The quality of the cotton imported is mostly middling and inferior, of which the greater part comes from British India, America, and China, in the order named, while Egypt supplies the relatively small amount required for the higher-grade yarns. Yarn for home consumption is composed almost entirely of American cotton, but in that for export it is mixed with others to the extent of from 10 to 20 per cent.

The imports of raw cotton, ginned and unginned, from all countries to Japan during 1905 amounted to $55,090,345, of which amount Kobe received $44,370,964 and Osaka $480,364. The imports have almost doubled since 1901, when they amounted to $26,104,082. Nearly 99 per cent of the raw cotton imported here is ginned. The unginned cotton comes mainly from French and Dutch India and the Straits, and is ginned here by the use of hand and foot gins [pictures of which are furnished by Mr. Sharp to Bureau of Manufactures and will be loaned to applicants].

Formerly these machines were imported from China, but now the Japanese are reproducing them of better quality and at a much lower figure, and not only supply their own market but are also exporting them largely to China and other Asiatic countries. The foot gin is

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1 foot 2 inches wide and sells for $11.95; the hand gin is 3 feet wide and sells for $23.90.

The Dutch consul at Kobe, seeing that over 50 per cent of the raw cotton imported here comes from British India, while Netherlands India, producing the same grade, contributes only a small quantity of unginned, has had the machines mentioned photographed, copies of which he has sent to his countrymen in the Dutch colonies with the view of inducing the people to adopt their use, believing that thereby Netherlands India can very larely increase her exports of raw cotton to this market.

PERUVIAN STAPLE NOT SUITABLE.

With reference to other possible competition with American cotton in this market, it might be of interest to know that the Toyo Kisen Kaisha, a prominent Japanese steamship company, started a line of steamers to South American ports last December, one of the prime objects being to utilize Peruvian cotton as a return cargo. This anticipation, however, of opening up new sources of supply has not been realized, the Peruvian staple having proved to be of too fine a quality for this market.

The prosperity of the cotton-spinning industry in this district (Kobe) during last year was exceptional. One factor was the greatly increased demand for yarn, caused by the war, another being the activity of the export trade on account of the high prices realized while the cost of raw cotton remained lower than usual. The 28 cotton mills in the Kobe district had on December 31, 1905, a total of $13,574,371 paid-up capital, $5,350,352 reserve fund, 1,148,764 spindles, and 6,986 looms.

During 1905 these mills produced 858,040 bales of yarn and 76,523,157 yards and 649,771 pieces of cloth, on which they made $5,374,755 total profits. They consumed 994,343 bales of cotton, and on December 31, 1905, had a stock on hand of $8,402,151 of cotton, $680,578 of cloth, and $454,366 of yarn.

With reference to the future development of the cotton-spinning industry there is a noticeable tendency toward the absorption of the smaller mills by the larger ones, and also toward the utilization of water power for the generation of electricity as a substitute for steam. There is little doubt but that the importation of raw cotton into this country will increase largely in the near future on account of the efforts being made to extend Japanese trade in cotton yarns and woven goods to the Asiatic Continent, especially if the relatively high price for yarn and low price for cotton is maintained.

SPINDLES IN GERMANY.

The London Commercial Intelligence reports that there are at present 9,730,209 spindles engaged in the German cotton industry, which shows an increase of 1,295,608 during the five years that have elapsed since 1901. There are 2,731,911 in Rhine Province and Westphalia. The number of looms is at present 231,199 or 19,381 more than in 1901. They are distributed relatively the same as spindles. Bavaria, however, devotes more attention proportionally to spinning than to weaving.

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FIBER CULTURE.

PRODUCT FROM TREES.

REPORTED VALUABLE DISCOVERY IN BRITISH INDIA.

London Commercial Intelligence prints a letter from J. R. Spence, written at Wellas Cotton Plantation, Deese, who claims to have discovered a variety of cotton tree, indigenous to India, capable of revolutionizing the cotton industry of that country. He says:

I have had the good fortune to discover that there exists a tree, practically indigenous, at present growing in various parts of the Bombay and Madras Presidencies, which produces a cotton infinitely superior both in classification and staple to American cotton and in classification alone can not be equaled in Egypt. It is an astonishing fact that the value of this tree's product has not up to this time been discovered by anyone in the cotton trade, notwithstanding the fact that the tree has been known to exist since the time of the mutiny and probably for hundreds of years previously. The only uses to which the cotton it produces has so far been put are the manufacture of wicks for lamps in Hindu temples and the stuffing of beds and pillows. After carefully examining it I unhesitatingly expressed the opinion that it possibly would ultimately revolutionize the cotton cultivation of India.

I sent samples to Bombay and Liverpool, where experts in the former city classed it as "fine," white in color, staple 1¼ to 1⅜ inches long, and said it would spin up to 60s.; in the latter city it was classed "superfine," color white, staple 1 13/16 to 1¼ inches in length, and valued at 7 to 8d. (14 to 16 cents) per pound—above the price of "middling"—American. I then decided to undertake the cultivation of the tree on a large scale, bought up the available seed, and made arrangements to procure all grown in the neighborhood in the future.

CULTIVATING ON A LARGE SCALE.

There are now considerably over a lakh (100,000) of trees on this plantation in a most flourishing condition, growing to a height of from 4 to 5½ feet, full of buds and bolls, and bearing cotton daily after being planted only six months. The quality of the "new crop," 1906, cotton is superior both in classification and staple to that of the parent tree. The yield the first year has been estimated by experts at a minimum amount of 2 to 4 ounces per tree, and, as there will be over 3,200 trees to the acre, this gives a total yield of 400 to 800 pounds per acre, which is above the average of Egypt and no less than from eight to sixteen times greater than the average of all India.

The second year's crop will probably be double the first and the third year's double the second. Each succeeding crop will no doubt increase still further, as it is well known that trees of this variety after the third year have yielded 5 to 10 pounds of clean cotton per tree annually during a known life of twenty years and over. It will thus be seen that if one-third of the cotton-growing area of India were planted with this tree the result of the second year would be a crop far in excess of that of this country and America put together. The

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quality is so excellent that it opens an entirely new field for Indian manufactures, the importance of which, bearing so greatly as it does upon the future prosperity of the country, can not be overestimated.

I was formerly for twenty years a member of the Liverpool Cotton Brokers' Association and have had five years' experience of cotton growing in Egypt. This cotton has been called "Spence cotton," in recognition of the fact that I was the first to discover its important value and to bring it to the notice of the commercial community. Several cotton trees have been tried in this country, notably those from Peru and Brazil, but the first will not grow in the plains at all, and the latter has not been found practically suitable to the climate. The great advantage and importance of the Spence cotton tree is that it is practically indigenous, that it has been found all over western India, and no doubt exists in the east, and that it will grow and flourish practically in any soil in this country.

The zeal of the government of India for the improvement of cotton cultivation is shown by a rather sharp letter which has recently been addressed to the government of Burma. This government published a report at the beginning of the year to the effect that there is little prospect of the extension of cotton cultivation in that country. The government of India, in replying, says that the conclusions arrived at as regards the future are unduly pessimistic, and goes on to declare that the conditions appear to be sufficiently favorable in the dry zone of Upper Burma to justify experimental work.

PORTUGUESE EFFORTS.

GOVERNMENT ENTERS STRONGLY INTO THE MOVEMENT.

Mr. Charles Page Bryan, minister to Portugal, furnishes information concerning the subject of increasing and fostering the production of cotton in the Portuguese colonies. He transmits the translation of an article from the "Diario de Noticias" of Lisbon describing the adoption of a decree to this end. The Portuguese Cotton Growing Association referred to in the decree was established at a recent meeting of the Lisbon Geographical Society, whose exhibit of coffee, cotton, cocoa, and other products of the Portuguese colonies, Mr. Bryan states, was largely attended and favorably mentioned. The article in part follows:

The decree of March 20 is at last in force, whereby the late minister of the colonies, Señor Moreira Junior, solved the problem of cotton culture in the Portuguese colonies, if advantage is taken of the great aid which this decree offers. The decree outlines the establishment in Portugal of a similar institution to those in England, France, Germany, and Italy, which shall take upon itself the duty of promoting and encouraging cotton culture in the colonies by every device of propaganda and incentive, as the cultivation of cotton there, which reached a stage of great development not so very long ago, has been nearly forgotten. With new, well-chosen seed stock, in well-cultivated and accessible lands set apart for the purpose, and with the selection of seeds and the constant perfection of the growing process, there can,

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in the shortest time compatible with the difficulties to be overcome, be furnished at least raw material enough to supply all the wants of the national factories—raw material, which, roughly speaking, represents an annual value of 4,000 to 5,000 contos ($4,080,000 to $5,080,000) now paid to America, the chief producing country, and to Brazil, whence about a fourth of our imports come.

PORTUGUESE COTTON GROWING COMPANIES.

We have spoken of this subject at various times, and we now request the natural protection of the Geographical Society, as the matter in hand is so closely connected with the high functions which this society exercises in our colonial dominions. Two most worthy institutions were recently founded in Lisbon, each of which now has a membership of over 1,000, the dues being payable monthly and annually, which shows the possibility of solving great problems by a combination of forces and eager minds, and how the necessary capital may be obtained by a little offering from each. The example of the foreign associations removes all doubts which may arise concerning the possibility of promoting and successfully rivalling America in cotton culture.

When the most suitable district has been carefully selected, our attention will be directed to all the lands included within that district; where there are no traces whatever of cotton there exist to-day experimental stations skillfully directed, whose importance increases each year in proportion to the bringing of new lands under cultivation, and the enlargement of the plantations as far as the capital stock will permit.

FIBER PRODUCTION OF COLONIES.

In Portugal two years have been wasted in discussing matters, and the uncertainties and delays which characterize our official way of doing business would have kept things thus until to-day if the initiative of the ex-minister of the colonies, cutting all these knots and complications, had not settled the matter by his decree of March 20. In spite of the delay in the official undertakings, it is certain that something has been done during these last two years. I have already stated that the Province of Angola cultivated and exported cotton on an important scale, which even in some years reached 800,000 kilos, worth 240,000 milreis (milreis=$1.08 American), then degenerating into complete abandonment of the industry, the minimum of 400 milreis being reached in the figures for the entire crop of 1903. In 1904 Angola increased her exportation of cotton to 38,000 kilos, worth 12,000 milreis, and in 1905, 106,000 kilos, worth 32,000 milreis, were exported, while during the months of January and February of this year (1906) the figures were 20,000 kilos, worth 6,000 milreis. On the East Coast, where nothing had been raised before, 5,538 kilos, worth 1,600 milreis, came to the metropolis in 1905, in addition to the 60,455 kilos, worth 18,000 milreis, exported to England.

Fifty-three samples of cotton were exhibited in the Geographical Society's Exposition, whereof 33 were from Mozambique, 16 from Angola, 2 from Lisbon (Parede and Seixal), and 1 each from Timor and Guinea.

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COTTON-STALK FIBER.

STAPLE FOR MANUFACTURE OF PAPER.

Mr. Harvie Jordan, president of the Southern Cotton Association, in an article prepared for and published by the Manufacturers' Record, of Baltimore, declares that the manufacture of paper from the fiber of the cotton stalk is one of the latest and most interesting inventions of the new century. For many years expert inventors have been busily engaged experimenting with the cotton stalk, and, according to Mr. Jordan, recent developments give assurance that their labors are to be rewarded with signal success. Not only have these investigations passed the experimental stage, but they are rapidly being shaped to be placed into practical operation. Mr. Jordan says:

It has been unquestionably demonstrated that all grades of paper, from the best form of linen grade to the lowest, can be manufactured from cotton stalks. In addition to this, a variety of by-products, such as alcohol, nitrogen, material for gun cotton and smokeless powder, can also be secured in paying quantities. The time is not now far distant when paper plants equipped with all modern machinery and devices for making paper and the utilization of the other by-products referred to will be built and placed in operation throughout the cotton-growing States of the South. The establishment of these mills for the manufacture of paper from cotton stalks will at once develop a new industry of quite enormous proportions and institute the utilization of a waste product which at the present time has comparatively little or no value. It will prove the entering wedge of checking the present increasing cost of paper, which is becoming such a burden upon the newspaper industry of the country.

SIGNIFICANCE AND VALUE OF THE INVENTION.

It is estimated that on an area of land producing a bale of cotton at least one ton of stalks can be gathered. Upon this basis of calculation this new industry can annually depend upon from 10,000,000 to 12,000,000 tons of raw material. This will not only furnish necessary supplies to meet all home demands, but also permit of the export of pulp or finished products to foreign countries. At the present time there is approximately $287,000,000 invested in paper mills in the United States, with but few plants located in the South. The bulk of the material going into the manufacture of paper at the present time is spruce pine, which is annually becoming more expensive owing to depletion of the forests and the high prices which such timber commands in the markets for other uses. The utilization of a waste product such as the cotton stalk, manufactured into commercial paper, will be a boon of inestimable value to the whole country.

The practical effect of this new invention will be to increase the present value of the South's cotton crop nearly $100,000,000 annually. The growers will be amply paid for the expense of removing the stalks from their fields and delivery to the paper plants, and in addition thereto receive a profit on this product of their labor. In the southwestern section of the cotton belt the new industry will especially be

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of value and a blessing. With the removal of the cotton stalks from the fields in the early fall the death knell of the boll weevil will be sounded and its present devastating influences reduced to a minimum. So that from every standpoint the speedy development and extension of this new industry will be welcomed in all sections of the cotton belt. Paper manufactured from the cotton stalk is of the strongest texture and softest finish. It is reported that several plants will be erected during the next few months in certain sections of the South which will be in full operation by January 1, 1907.

THE INDUSTRY IN MEXICO.

The Mexican Journal of Commerce in an article on the cotton industry of Mexico says:

The consumption of raw cotton in Mexico is estimated to be 100,000 bales annually, 50,000 of which are produced in the country, principally in the States of Durango and Coahuila. Active efforts are being made throughout the Republic to increase the acreage of cotton under cultivation, inasmuch as there are other places in the Republic exceedingly well suited to its cultivation, such, for instance, as the coast lands of the States of Oaxaca and Guerrero, and the States of Chiapas, Veracruz, Puebla, and Morelos.

The fiber of the Mexican cotton is longer and stronger than that of the United States, but is thinner, less silky, and not as clean as the latter, which fact has given rise to the custom of mixing the American cotton with the Mexican, especially in the manufacture of articles of fine texture. The dullness in the cotton trade that has been noticed for the last two years, and which was due largely to the considerable stock that the factories had on hand, seems to have entirely disappeared.

PERSIA AND BORNEO.

ANNUAL PRODUCTION AND QUALITY.

Persia produces about 13,000 tons of cotton per annum, which is exported to Russia. It is cheaper than American cotton and is unaffected by speculation. At least that is the report of a British trade paper. There are certain factories in Russia specially adapted for the use of Persian cotton, but complaints are made that the varieties are mixed and sold in parcels of doubtful quality, often adulterated with seed.

The British Imperial Institute made an examination of some cotton grown in North Borneo and reported that the cotton was of a fairly even cream color, rather coarse, and harsh to the touch, curly, and an average long fibre, but contained a small proportion of shorter fibers. The unginned cotton yielded approximately 27 per cent of lint. The commercial experts reported that the ginned cotton was very clean, but of short, rough staple, and worth a little less per pound than "Middling American" cotton. It is said that the cotton is capable of considerable improvement, and efforts are being made to induce the natives of North Borneo to cultivate it on a more extensive scale.

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COTTON-SEED MEAL.

VALUE AS FOOD FOR HOGS.

At the recent meeting of the Texas cotton-seed crushers held at Galveston, the bureau of publicity made a report dwelling upon the experiments for determining the value of cotton-seed meal as a food for hogs, and the home use of cotton oil. The reports stated that experiments in using cotton-seed meal for hogs were begun two years ago and had been continued, and that the success met with in this direction alone had more than justified the work done and the expenditure made. The bureau combated the contention that cotton-seed meal was poisonous to hogs. The report says that it is now the recognized part of the ration in daily use by hundreds of the most intelligent feeders in Texas and in other States, and the best agricultural journals of the South are giving it wide and frequent discussion; and in four different States the experiment stations, while as yet declining to give it hearty indorsement, have largely modified their views concerning it and have recommended its use under certain conditions, and are giving it investigation, which can but result in advocating its use.

AUSTRALIA.

EXPERIMENTS IN COTTON CULTIVATION.

According to John P. Bray, consul-general at Melbourne, the director of agriculture of the State of Western Australia has reported to his government on the subject of cotton growing in that State, as follows:

"Actual experiments have shown that cotton can be successfully produced along the entire western seaboard of Western Australia south of Derby. Evidence to this effect is to be found at the New Norca Mission, the Beagle Bay Mission, and at Greenough Flats. At the last-mentioned place cotton was successfully grown thirty years ago, while at Hamel, and in the southwest generally, cotton has been found to grow luxuriantly. All things considered cotton growing should become one of the most successful industries of this State if the labor difficulty can be overcome. It is stated that a satisfactory form of machinery for harvesting the crop has been introduced, and if this is so Western Australia should become one of the leading cotton producers of the world. Ideal conditions for cotton growing as regards soil and climate could be obtained all along the coast line between the twentieth and thirtieth degrees of latitude."

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LEATHER.

A GREAT INDUSTRY.

AMERICAN SHOE AND LEATHER FAIR.

A PRACTICAL NATIONAL TRADE EXPOSITION IN CHICAGO.

America's first national shoe and leather fair will be held in Chicago August 18 to 25. A short description will be of interest.

The reason given for the organization of an annual shoe and leather trades exposition for the United States is that the leather industries, from the tanning of hides and skins to the sale of shoes, harness, belting, gloves, bags, fancy leather goods, etc., are scattered over a wide expanse of country. Buyers and sellers are widely removed from each other. An annual fair at a central point will be of inestimable value. It will result in a better understanding of trade conditions, the mitigation of abuses, and the accomplishment of trade reforms. The shoe and leather fair to be held in London next November will be the twelfth consecutive affair of the kind. These London fairs have demonstrated their value and have become an annual feature of the British shoe and leather industries.

The American fair will be held in the First Regiment armory, Chicago, and will comprise comprehensive exhibits of this great industry as developed by American ingenuity. The display of manufactured goods will be supplemented by shoe and leather machinery in practical operation. Motors for the operation of machinery may be rented for the period of the fair at the following prices: One-fourth horsepower, $4; one-half horsepower, $5; 1 horsepower, $6.50; 2 horsepower, $8; 3 horsepower, $10; 5 horsepower, $12; 10 horsepower, $15. Motors furnished complete, with starting boxes, rails, and pulleys. Order 110-volt motors up to 1 horsepower. Order 220-volt motors for larger than 1 horsepower. Trade conventions will be held during the progress of the fair. Excursion rates will be made, so that trade visitors from all sections of the country can attend in large numbers at reduced railroad rates. It will be a liberal education for the merchants to inspect the methods of handling leather and the array of finished products.

The Bureau of Manufactures will send to the fair an exhibit of foot wear received from China, of which a report was published in Daily Consular and Trade Reports on June 5, showing the possibilities of securing part of that trade for America.

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TURKISH MARKETS.

HOW GERMANY SECURED TRADE IN ORIENT.

The following particulars of the leather trade of Constantinople are taken from the Revue Commerciale du Levant:

During the last ten years the tanning industry of Turkey has shown great progress in respect of both quality and quantity of production. Nevertheless, the sale of foreign leather has not diminished, the annual amount disposed of being estimated at more than $1,946,600; this figure includes a certain quantity of leather consigned to South Bulgaria via Constantinople. The value of the home production and of the imports from the Archipelago and from Egypt exceeds the above-named sum.

Sole leather is imported into Turkey in bundles varying in weight from 5 to 10 kilograms (kilogram=2.20 pounds), but averaging about 7 or 7½ kilograms. This leather is always hammered, as the bad condition of the roads necessitates the use of solid soles. About 400,000 bundles of foreign sole leather are imported every year. Eleven years ago France and Italy divided this trade, the former country sending all the superior quality leather imported, amounting to 45 per cent of the total, and the latter furnishing all the ordinary leather. At the present time France still holds her own and supplies 45 per cent of imports, but Italy only sends 5 per cent, while Belgium sends 30 per cent, and Hungary 20 per cent.

Box calf is greatly in demand for uppers. This at one time came almost entirely from the United States of America, but the leading German tanners brought over a number of foremen from America with a view to promoting the manufacture of this leather. Their efforts have been crowned with success, and the Germans now control the Turkish market, only a small quantity of box calf being sent from the United States. Patent leather is also largely worn by the natives, both for boots and goloshes; eight-tenths of the imports of this leather comes from Germany.

In the last eight or ten years large quantities of sole leather waste from European boot factories have been imported, the annual import averaging 100,000 kilogs., at prices ranging from 2 to 8 cents per kilog. This is used for making heels, and is much appreciated in Constantinople, as most of the shoemakers are employed on piecework, and time has no great value. Most of this waste comes from Germany, but the United Kingdom furnishes a small quantity.

ITALIAN SHOE TRADE.

AMERICAN FOOTWEAR COPIED BUT INFERIOR QUALITIES PRODUCED.

Consul James E. Dunning reports on the shoe trade of Italy in the following letter from Milan:

The average Italian shoe is sold at the same price as the American product, and is not half so good in quality. The lasts are the same, Italian makers having successfully copied every American style in men's shoes. Women's shoes are particularly ugly and ungraceful,

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rendering the ankle crooked and the position of the foot on the ground unnatural. Most women wear buttoned boots. Children's shoes have perfectly stiff soles, like wood. A few shoemakers will fill orders for children's shoes with flexible soles, but the price is high and the quality low. Thus the only reason why the superior American shoe should not get a hold in Italy is the high tariff—$40 per 100 pieces imported, excepting as to importations from Germany and Austria, for which the duty is 50 per cent less, or $20 per 100 pieces. Hides come in free. Unfinished leather pays $5 per 220 pounds; finished leather for shoe soles pays $9 per quintal of 220 pounds; glazed leather pays $18 per quintal, and leather for uppers pays 20 per cent additional on the above rates.

Under such conditions Italian shoemaking has thrived, as a matter of course. One of the largest concerns is the Shoe Society, of Varese, which has factories there and a "chain" of stores on the American plan throughout the country. Another very important company is the Italian-American Shoe Company, in Milan, which does an extensive business with South American countries, and has lately reduced its capital to $2,240,000 by reimbursing each shareholder in the sum of $10 per share.

STYLISH FRENCH AND GERMAN SHOES IMPORTED.

Most of the shoe machinery used in the Italian manufacturing trade is Italian and German, and electricity has in an interesting measure taken the place of steam for power. Some American machinery is reported to me among makers whom I have interviewed, but Germany appears to lead there. Men and women are employed in factories in about equal proportion. There are no "popular" or patented types. Russet shoes make up about a third of the total output annually. German and French shoes, which are somehow able to pay the duty and still offer a rather low price, are sought after considerably on account of their superior style, though this condition is being rapidly gotten over by the ingenious Italian makers. As a rule factory shoes follow the old lines, and purchasers of more stylish footwear patronize custom shoemakers and buy to measure. One-quarter of the population wears the wooden sandals characteristic of the country.

These notes on the Italian trade may prove useful to American manufacturers. The demand here is for a man's shoe which will sell at not more than $3.50 and will outwear the inferior native stock. That means something like a $2.50 shoe in America, deducting the tariff, and I offer the question to our manufacturers. For women, lace shoes could be introduced with a little good work, if the conditions of price could be met.

GOOD SHOES FOR CHILDREN UNOBTAINABLE.

It is impossible to buy in Italy a child's shoe of the comfortable type known in America, or of anything like equal quality. Prices of this class of goods run from $1 to $1.80, the latter being asked for shoes made to order in the American fashion with flexible soles. One pair of American shoes of this class will outwear not less than six pairs of the Italian goods. I should be glad to hear from manufacturers who think they may be interested, with a view to some further discussion of the

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question, and with a view to ascertaining if there is some way of making a landing here with the better American article. The matter is too expert for the determination of the consulate, which can only indicate the need of the market in the hope that some one may be interested in making an effort to supply it. It all appears to be concerned with the cost of production and the tariff.

The north Italian market would seem to be available for a campaign with an advertised special shoe, which would be a novelty. However, the rapidly increasing Italian factories, fostered by the tariff, might readily meet such attacks in kind.

TRADE IN FINLAND.

HEAVY SALT KINDS IN DEMAND—ALSO BOOTS AND SHOES.

The British vice-consul at Uleaborg, Finland, gives the following particulars of possible openings for trade in hides, leather, and leather manufactures:

The quantity of hides yearly imported is from 35,000 to 40,000. The kind required are South American salted hides, mostly heavy hides, weighing from 77 to 88 pounds each, but a certain quantity of lighter hides, weighing from 50 to 70 pounds each, are also in demand. The hides are bought from German firms, either for direct shipment from South Africa or from stock in Hamburg. They are mostly bought on weight. Having gone thoroughly into the question, I can not see any possible reason why the large London and Liverpool hide factors can not sell these hides quite as well as the German houses. There is also a demand for British kips. At present few boots and shoes are imported, but during the last few years the ordinary kind of boot has been taken up, and there is no doubt that in time it will be largely used. The building of a large factory here on very up-to-date lines to make American boots bears out this statement. A good few American boots, as also a certain quantity of German make, are imported in the South of Finland, but I should be very surprised to hear of a single pair of British boots having come in.

OUTPUT OF LOCAL TANNERY.

There is situated in Uleaborg a very large tannery, which sells to Russia alone between $350,000 and $500,000 of leather every year and also a large quantity in Finland. The greater part of this leather is sole leather. The leather costs as follows: Sides weighing 28½ pounds on an average, 35 cents per pound; sides of slightly lighter leather, rather less. A few of these sides of four different weights, which are roughly trimmed and not to be compared in pattern to Australian sides, were shown by the writer to several of the principal London leather factors and were valued by them at from 9d. (18 cents) to 10½d. (21 cents) per pound and were subsequently sold at auction for 6d. per pound. Presuming that a British tanner could turn out an equally good leather, say at 11d., he would have to pay duty in Finland at the rate of 2½d. per pound and freight, say ½d. per pound; he would therefore be able to sell considerably under the price obtained by tanners here.

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SUGGESTIONS TO EXPORTERS.

There is one fact to be borne in mind, and that is, if a tanner wants to do business here it is no good offering exactly the same leather as is used in the United Kingdom. Here soles are not sewn but pegged on, and for pegging a much harder leather can be used than for sewing; in fact, I doubt if the sole leather used here could be sewn by machine. Hard leather of a darkish color is used and wanted here, and anyone wishing to sell leather on this market should obtain samples of the leather manufactured in Uleaborg, and turn out the same or better. The Americans have several agents in Finland, and have sold large quantities of hemlock sole leather. Leather traveling bags, pocket-books, and purses of a cheap quality will find a market here.

TANNIN PLANTS.

CULTIVATION IN GERMAN COLONIES.

The cultivation of tannin-yielding plants in the German colonies of Africa has been often agitated by interested parties, reports Consul-General Richard Guenther, of Frankfort, who writes:

German tanners have already used large quantities of mangrove bark, coming from East Africa. A much more valuable tanning material, however, is mimosa bark, imported from Australia. Thorough investigation by Doctor Holtz in German East Africa as well as in Natal has shown that the mimosa can be cultivated successfully in German East Africa. The Central Association of the German leather industry has therefore resolved to contribute to the colonial industrial committee for the purpose of cultivating that plant on a large scale.

PRICES IN ENGLAND NOT LIKELY TO BE REDUCED.

The London Times says that there does not appear to be any possibility of leather being put upon the market except at material advances on prices recently quoted. One of its correspondents asserts that American sole leathers have been "found wanting" in the matter of quality, stating that the average percentage of adulteration on seventeen samples was 9 per cent. It says that this average did not include a very bad sample which alone showed 30 per cent of added matter. It says nothing of the fact, which has been shown, that British tanned leather is also adulterated.

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FOOD PROBLEM.

ADULTERATION AND INSPECTION.

THE MEAT QUESTION KEEN IN EUROPE.

CONSUMPTION LESS IN ENGLAND—INSPECTION IN CANADA—ANIMALS KILLED IN GERMANY.

Touching the effect of the accusations against the Chicago packing houses, Consul F. W. Mahin quotes some Nottingham local dealers as saying that there is now absolutely no call for canned meats, either American, domestic, or colonial. The consul writes:

Other dealers report a very much reduced trade, but still some demand. Sales of canned salmon have much declined, says the leading fish-dealing firm in this locality. Another large firm reports that every food product with "Chicago" marked on it is boycotted. No decline is reported in the sale of American ham and bacon, but one dealer intimated that they need not appear to have come from Chicago, even if they did. Sales of American fresh beef from Chicago houses show no decline, but an increase, if anything, according to a local firm making a specialty thereof. A similar report is made by firms handling American canned fruits and vegetables.

The firms interviewed said that in many years' experience with American canned meats complaint from customers had been infinitesimal; that the only instances of spoiled goods had been where nails had been driven into cans, presumably when reboxed after examination at the English port of arrival. These dealers are evidently doing what they can to convince their customers that the canned meats exported from the United States are perfectly good and wholesome, whatever may be said of the goods sold to the American consumers.

Replying to a question in Parliament a few days ago, the president of the board of trade said that the value of American canned meat, fish, and fruit imported into the United Kingdom during the fiscal year ended March 31, 1901, was £2,234,000 ($10,871,761); during the fiscal year ended March 31, 1905, £2,062,000 ($10,034,723).

A report from the British consul at Chicago, published last week, gives the total value of the exports of canned meat from that city in 1905 as roundly £1,500,000 ($7,500,000), of which the United Kingdom received £900,000 ($4,500,000) worth. This country, it is stated, took 5,000 tons more in weight and £200,000 ($1,000,000) more in value than in 1904. As to fresh beef, bacon, and ham from Chicago, the figures given indicate that Great Britain bought of each, in 1905, more than four times the value of its canned-meat purchases, i. e., approximately $20,000,000 worth of each. The value of lard imported from Chicago was also nearly as great.

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It would appear from the figures of both the consul and the board of trade that the loss of the entire canned-meat trade of the United States with Great Britain would not be an overwhelming disaster. It is probable that some of it will be permanently lost. Attention is being drawn to the feasibility of extending the canned-meat industry in this country, where it now exists to a limited extent, and the representatives of the colonies are making the most of the opportunity to exploit their own canned products.

MONTREAL MORE VIGOROUS IN FOOD AND MEAT INSPECTION.

Consul J. H. Worman makes a report from Three Rivers that the present agitation concerning the meat packing and food inspection has stirred Canadian authorities also, and a closer inspection of food is now exercised than heretofore.

On June 9 the chief food inspector of Montreal confiscated a carload of dead cows. The animals were dressed and had been brought from Ontario. Some of the calves on sale were below the age when they ought to have been killed and put on the market for human consumption; there were also others badly diseased. In some of the suburban towns, now part of the city of Montreal, the abattoirs are very defective and public sentiment is loudly calling for improvement.

ARE WE LOSING OUR BACON TRADE IN ENGLAND?

The remarkable gain Canada has made on the export of bacon to England is one that should have the attention of American exporters of that article. The British Grocer comments on these facts in a recent issue as follows: "As an exclusive trade the Canadian bacon trade still falls a long way behind that of the United States, but considering its comparative youthfulness, it affords evidence of astonishing vigor and vitality, and must therefore be reckoned with as an important fact in determining the probable course of the bacon trade."

According to British figures furnished by Consul Worman for 1905, the United States exported to Great Britain 2,755,233 hundredweight, against 2,806,108 in 1904, which figures indicate a falling off of 50,875 hundredweight, while Canada exported only 829,883 in 1904, against 1,191,390 hundredweight in 1905, thus making a gain of 361,507 hundredweight.

However, American official figures show that the United States exported to Great Britain 1,968,227 hundredweight of bacon in 1904 and 2,133,973 in 1905, a gain of 165,746 hundredweight. The statistics for 1906, however, show a retrograde movement, as follows:

	Hundredweight.
January	205,464
February	182,389
March	179,165
April	179,672
May	158,063

ARGENTINE FROZEN MEAT IN ENGLAND.

Consul Hamm, at Hull, reports that the committee of the board of guardians of one of the workhouses in that city held a meeting June

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12, at which the medical officer reported that there had been a serious outbreak of diarrhea and sickness in the institution. There were 35 cases in all, 6 of which proved fatal. The medical officer ascribed the outbreak to the use of frozen meat obtained from Argentina. He also asserted that a large quantity of the same kind of meat received from Argentina had been destroyed the previous day as unfit for use. The matter is being thoroughly investigated. It is asserted that the same kind of meat is supplied to the Army and Navy, the workhouses throughout the country, and is also placed on board trawlers and ships sailing from Hull.

SCARCITY OF BACON IN IRELAND.

It is claimed by a Dublin correspondent of the Montreal Star that there is a great scarcity of bacon pigs in Ireland and that the rise in price of bacon is imminent there. Asked how he accounted for the falling off in the rearing of pigs in the country, considering that the last potato harvest had been a tolerably good one, one of the leading dealers replied that he believed it was owing to the large imports of American flour, which, in contradistinction to Irish milled flour, left no offal for pig feeding. The price of rich bacon at present was 2 shillings per hundredweight less than twelve months ago, and it has stood almost stationary at that figure since September last. In July, 1904, it was 6 shillings per hundredweight higher, and in March, 1905, it was 2 shillings above the present rate.

GERMANS EAT LESS MEAT.

KILL FEWER ANIMALS—PORK PRICES DECLINE.

A chapter in the absorbing meat question is furnished by Consul Joseph I. Brittain, who writes from Kehl:

According to recently published statistics there is a further reduction in the meat consumption in Germany. In the first quarter of 1906 it was not only less than in the last quarter of 1905, but also shows a decrease as compared with the first quarter of 1905. Per capita the population of Germany used during the first quarter of 1906 20.94 pounds of meat, during the fourth quarter of 1905 21.40 pounds, and during the first quarter of 1905 22.17 pounds. The decrease would have been still greater had not the importation of meat during the period given been extraordinarily forced in anticipation of the new tariff.

The number of beeves and other meat-producing animals slaughtered in all Germany during the first quarter of 1906 was only 5,770,127, as against 6,444,550 in 1905. The greatest decrease is shown in the consumption of pork per capita. The consumption of pork fell from 11.59 pounds during the first quarter of 1905 to 10.07 pounds during the first quarter of 1906. This is rather surprising in view of the fall in the price of pork in various parts of Germany. The German cattle market this year has thus far shown less strength than during the preceding year. A substitute for pork has been sought as far as possible in beef and veal, which, while often not dearer than pork, are nevertheless not so nourishing, and in the end can not take the place of pork satisfactorily. Moreover, there has been only a very slight

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increase in the consumption of beef over the previous year. The percentage of mutton and goat meat consumed in Germany is insignificant, amounting at the most to not more than 0.44 of a pound per capita.

In Alsace-Lorraine the scarcity of meat was somewhat relieved by families living along the German boundary sending their children over into France where they could purchase meat in quantities not exceeding 3 or 4 pounds, and return to Germany without paying any import duty. The meat could be purchased in France for from 3 to 4 cents per pound less, and by each child bringing into Germany a quantity of meat large quantities were brought in. French butchers located along the boundary and did a thriving business for some months, but this sort of importation has been prohibited. In Alsace calves are selling at 12 cents per pound live weight. At present corned beef is being sold in Strassburg, put up in tin boxes to resemble the American form, and bearing labels printed in English, but I understand the beef is packed in Hamburg.

FOOD ADULTERATION.

STRINGENT MEASURES IN GERMANY FOR PURE PRODUCTS.

Consul J. I. Brittain writes from Kehl that the beef-packing investigation in America has given rise to a good deal of discussion in European newspapers, making some important revelations, in part as follows:

In an article published by the Strassburger Post recently, giving a short history of the fight against adulteration in Germany, it was stated that according to statistics collected by Doctor Juckenack, of Berlin, there were in Germany in 1888, 1,400 prosecutions for adulterating food products; in 1898 the number had increased to 3,000; in 1901 to 3,586, and in 1903 to 6,000.

With increased stringency in the inspection laws it was discovered that many large and reputable firms were carrying on privately special departments of their factories where regular chemists were employed to scientifically adulterate the food products manufactured by the firms. Not two years ago in Berlin 30 butter manufacturers were summoned before the courts for an almost incredible adulteration of their wares, and recently a sausage manufacturer of honorable renown was before the court for filthy adulteration of sausages.

ADULTERATION COMMON IN SMALL PLACES.

The practice of adulteration is much more common in small places in Germany, where there is little or no inspection, than in the cities where the Government has its laboratories for the analysis of food products, its detectives, both male and female, and its system of stamping all inspected products. Berlin holds first rank among German cities in the stringency with which it enforces the laws protecting the purity of food products. Of the milk sold in Berlin during the year, there are perhaps 25,000 analyses made. Milk must contain at least 2.7 per cent of fat. There are in the neighborhood of 3,000 specimens of butter also analyzed in Berlin during a year. Butter can not contain more than 16 per cent of water. Canned fruit is col-

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ored, and it is rare in Germany to see a glass can of fruit which does not present a highly artistic appearance. The writer of the article spares his readers out of consideration for their appetites a description of the methods of manufacturing lard and sausages, revealed in court proceedings.

ACTIVITY OF THE AUTHORITIES.

The Strassburg papers recently reported the arrest of a butcher of Alsace-Lorraine for manufacturing sausages from spoiled meat, colored and doctored with chemicals, and few weeks pass in Strassburg without the arrest of market women for adulterating butter. Wines, chocolate, cocoa, and brandies are largely adulterated, and medicines have been discovered to contain absolutely injurious and dangerous substances, used for the purposes of adulteration. In a list made recently in one of the large cities of 28 samples of medicines 14 were discovered to be not only impure but injurious as well. Cosmetics come in for their share of condemnation. Cologne water adulterated with orange flower water is harmless, but worthless as well, and sells for many times its value. According to the writer in the Strassburger Post, there seems to have been very few articles of food and drink products of the pharmacy which have not been the subject of adulteration on the part of the German manufacturer.

GOVERNMENT MEAT INSPECTION IN GERMANY.

Consul-General Richard Guenther reports from Frankfort that during the first three months of 1906 the following number of animals were slaughtered and inspected in the German Empire:

Description.	1906.	1905.	Description.	1906.	1905.
Horses	43,421	35,899	Calves	1,052,261	1,122,865
Oxen	152,246	142,214	Hogs	3,237,079	3,924,280
Bulls	104,060	112,783	Sheep	485,878	452,397
Cows	429,161	413,756	Goats	96,301	107,775
Heifers	211,151	186,353	Dogs	2,151	1,785

MILK INSPECTION.

REGULATIONS TO SECURE CLEANLINESS AND PURITY.

Consul E. T. Liefeld supplies a translation of the regulations for the milk traffic in the city of Freiburg, which were issued on May 14.

Milk may be sold or offered for sale only when it has a specific weight of 1,029 to 1,034 at 15° C. (59° F.); skimmed milk must at the same temperature have a specific weight of 1,032 to 1,037.

The milk must have a minimum of three parts in one hundred, in weight, of fat. Less than this is considered impure unless the accused can prove that this was not caused by any changes made by him after he got the milk.

Milk for invalids and infants may be sold only when the owner of the institution, the seller, or the producer follow the special regulations pertaining to the sale of such milk, which were passed May 1, 1898.

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and when he has submitted to special police and sanitary control of the police department. The names of the owners of such institutions must be made public. Milk when shipped from the city without being accompanied on the railroad by a representative of the shipper must be placed in cans, which must be locked or sealed.

All milk sold is under the control of the police health department, which provides for thorough inspection, and in doubtful cases the examination of the stable where the milk was produced.

For determining its specific weight the milk examined is shaken, stirred with a wooden spoon, and poured from can to can until it is thoroughly mixed, so that there is an even distribution of the cream. Its odor, color, taste, and consistence is then tested and compared with normal milk, and the presence or absence of foreign matter, ice, water, etc., determined. The specific weight of the milk is determined by the milk scale or lactodensimeter.

If a doubt arises as to quality or specific weight a sample for chemical analysis is taken, for which a receipt must be given the owner of the milk, who is also entitled to a part of the sample in a properly sealed receptacle, and full payment for the sample taken. At least one-half liter (1.05 pints) must be sent in for chemical examination, taken from milk which is first thoroughly stirred with a wooden spoon, and the sample placed in a perfectly clean and dry glass bottle or in one which has been rinsed thoroughly with the milk from which the sample is taken. The bottle is to be closed with a new and unused cork, sealed, and labeled with full information. The sample must be immediately sent to the inspection bureau and, during hot weather, packed in excelsior and ice.

If the chemical examination does not give proper data for a safe decision as to the quality, then an examination and test of the stable where the milk was produced may be ordered within two or three days at regular milking time, with a police officer present. All the cows in that stable must be milked dry into dry empty cans or buckets. This milk is thoroughly mixed with a wooden spoon, and a sample of at least one-half liter (1.05 pints) taken. The label on this sample must show the number of cows in the stable, the time when the sample was taken, the kind of feed given the cows, and the state of health of the cows.

Any person selling or offering for sale any milk which does not comply with the requirements is liable to a fine of $35.70, or to imprisonment. The bringing in of milk from other points is considered as equal to the sale of milk within the city.

FOOD SCARCE IN ENGLAND.

FOREIGN SUPPLIES DIMINISHING—HIGHER PRICES.

Consul Edward B. Walker sends from Burslem an English newspaper account of the scarcity of food supplies in England and their greater cost. Some interesting points of the article follow:

Bacon, cheese, eggs, and butter are scarce and dear in England, largely owing to the enormous demand for those commodities in America and Germany. America is also more and more using up its own wheat, and Germany is consuming more and more of the avail-

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able beet-sugar supply, so that though the last crop was one of the largest on record there is a shortage in England. Hence a strong movement in England to establish the sugar-beet industry. Hogs are in greater number in the United States, but Americans are eating more of their own bacon, and Germany has begun to compete for the surplus for which England has been the chief market. Whereas Germany used to export provisions she must secure in an increasing degree supplies for herself. Even though English ports are free the population of the protected countries of Germany and America are becoming more luxurious, so that the foreign supplies of food for England are diminishing. A week or two ago, while the American shipments of bacon to us were 14,000 or 15,000 boxes, about 4,000 boxes were sent to Germany, though none used to be sent, and the English market is short to that extent. Hogs are also scarce and dear in Canada, and Denmark's supply is now going to Germany instead of England, as formerly.

Eggs are likewise scarce. Austria-Hungary, Russia, Roumania, and all the Balkan States used to ship eggs to us. Germany was likewise a big exporter of eggs, butter, cheese, and bacon. To-day Germany is sweeping the Continent for eggs, and, as a consequence, last week in the Manchester, Liverpool, and London markets it was scarcely possible to buy a Continental egg. At the moment we are almost entirely dependent on Ireland for our supplies, with prices 20 per cent higher than a year ago.

Until last year England had a monopoly of Siberian butter, but Germany stepped in and took half of the production of Siberia direct, and at such prices that London prices went up 50 cents per hundredweight. This year Germany is taking all the Siberian butter, notwithstanding that her import duty was increased from $2.90 to $4.87 per hundredweight. What is true of Siberian butter is true of the Dutch article, and to a large extent of Russian, Finnish, and Danish butter. All this explains to the British housewives why they must pay higher prices for provisions.

POTATOES AS STOCK FOOD.

ENGLISH SURPLUS TURNED TO GOOD ACCOUNT.

Consul Frank W. Mahin reports that last year's unusually large acreage and yield of potatoes in the Nottingham district, exceeding the demand, has left many English farmers with considerable stock on hand, practically unsalable since this year's product has been put on the market.

Some of these farmers have discovered that all kinds of stock, even horses, like potatoes when properly served, and are consequently turning their surplus tubers to good account, especially as the pastures are poor so far this season and last year's hay is nearly exhausted. To illustrate: An extensive farmer in Lincolnshire, who declined an offer of $8.50 a ton for his old potatoes, boils, mashes, and serves them mixed with oat straw to his horses, which eat them with evident relish. After several weeks of such feeding the horses seem in prime condition. Milch cows were also fed on a similar diet with apparent satisfactory results. Calves were also thus fed, and pigs, of course—the

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latter particularly thriving and fattening upon the potatoes. Sheep are also fed with them, but in more limited quantity.

Raw potatoes have been tried, but are not recommended, being found indigestible. The cooked potato is declared to be far more nutritious for stock than turnips, carrots, or any other root vegetable. But it must be washed thoroughly clean, and the water in which it is boiled should not be used, having been found very deleterious to stock when used for mixing meal, or the like. It would seem that farmers everywhere could thus profitably use surplus stocks, and also very small or otherwise unmarketable potatoes. Ordinarily, the local farmers who are thus feeding potatoes would have used food substitutes like oil cake, but it is unusually high priced this year.

PROVISIONING A FRENCH CITY.

QUANTITIES OF MEAT AND DRINK CONSUMED, AND COST.

Consul George H. Jackson sends the following report on the cost of furnishing supplies to a small city in France:

La Rochelle has a population of 34,000, of which 31,000 are within the "octroi" limits. The octroi is a municipal tax levied on merchandise entering the city for the use of its inhabitants. This tax produced last year, 1905, the respectable sum of $116,599. More than $33,206 of this income was derived from "wet goods," as follows: Wine, $23,869.80; cider, $121.20; alcohols, $4,131.05; oils, $2,928.96; beer, $1,399; vinegar, $747.

From food stuffs there was received nearly $38,600 distributed as follows: Live animals, $18,754; dressed meats, $8,906; cooked pork products, $404; other pork products—lard, meat (salted or smoked), $454; tripe and plucks, $3,635; truffles, $125; fowls, $3,029; oysters, $1,234; game, $267; cheese, $1,914; fruit (dried and otherwise preserved), $1,730; oranges, $1,007.

Combustibles produced, $17,405; fire wood, $2,086; charcoal, 2,106; coal, $9,515; mineral oils, $2,478; candles other than wax, $18; tallow, $81; wax, $1,119.

CONSUMPTION OF FOOD STUFFS AND LIQUORS.

From provender was realized $7,637, and from building material, cement, tiles, cut-stone, bricks, lumber, glass, paints, and varnishes, $4,272.

The amount of tax collected per capita was $3.77. The quantities of food consumed per capita were: Wine, 234 liters, 61⅝ gallons; alcohol, 2¼ quarts; beer, 4½ quarts; meats other than pork, 74⅛ pounds; pork, 28½ pounds; fowls, 11 pounds.

The average prices for various food stuffs were: Bread, first quality, from 25 to 30 centimes per kilo (5 to 6 cents per 2.2 pounds); red wine, 5 cents a quart; white wine, two-fifths of a cent less per quart; meats, first quality of beef, 18 cents a pound; second quality, 13 cents; third quality, 10 cents; veal, first quality, 17 cents; second quality, 16 cents; mutton, first quality, 19 cents; second quality, 17 cents; pork, 17 cents.

These latter prices of course apply only to fresh meats. French hams retailed at 28 cents per pound, American and English hams from 32 to 36 cents. Lard is sold at 18 cents.

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The principal beverage here is wine, which is consumed at the rate of 68 gallons per head of the population per year, which is about 1½ pints per person per day.

The amount of spirituous liquors consumed is but 2¼ quarts per head per annum, and this occurs in the very heart of the region where the largest amount of brandy in the world is produced.

These facts, as well as many others that have presented themselves, would indicate that the daily use of wines with meals prevents the appetite for stronger alcoholic beverages. The wines ordinarily consumed contain 7 per cent or 8 per cent of alcohol, but as they are usually mixed with equal parts of water the consumer ingests a liquid containing 3½ or 4 per cent of alcohol.

I have known wines to be sold at retail at 3 cents per quart, while the cheapest bottled mineral water sells at 10 cents.

Drunkenness is practically unknown here and does not happen from wine or brandy drinking.

PRESERVING FRESH MEAT.

A NEW INJECTION PROCESS DISCOVERED IN PARIS.

Consul D. I. Murphy writes from Bordeaux concerning a new method of preserving meat, which is said to have been discovered by Doctor Roux, of the Pasteur Institute, in Paris. The consul sends a translation of a clipping from Le Nouvelliste of June 11, and adds that he is endeavoring to obtain information as to the nature of the process and full particulars regarding it.

Following is the newspaper article referred to:

Doctor Roux, of the Pasteur Institute, has discovered a process which, by means of injections at the time of slaughter, will preserve meat for a considerable period. The Minister of War has just given orders for a test of Doctor Roux's method on a large quantity of meat under conditions resembling as near as possible those prevailing during time of war. Consequently, next week in Paris a certain number of animals will be slaughtered, which, after having undergone the necessary operations, will be distributed among the different army corps after a certain time, a given route of transportation and most minute inspection.

AMERICAN CANNED.

PREFERRED IN SOUTH AFRICA.

Consul E. L. Harris reports that the Chemnitz Tageblatt, under date of July 1, contains an article drawn from official sources, which says that the best brands of American canned meats have always been decidedly in favor with the soldiers in Southwest Africa.

The commissariat department furnishes the soldiers in the field with rations consisting of one-half meat of American origin and the other half with the home product. The American meat is very much cheaper than that produced in Germany. In fact German meat can not be delivered in Southwest Africa for any less than three times the cost of that imported from America.

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FISHERIES.

A WORLD INDUSTRY.

WHALING IN THE NORTH PACIFIC.

EXTINCTION OF THE BOWHEAD THREATENED—DISCOURAGING SEASONS.

Consul Gabriel Bie Ravndal, of Dawson, Yukon Territory, has furnished a report on conditions in the far north, which contains interesting information regarding the whaling industry. The consul forwards copies of letters received from captains of whaling vessels. He writes:

My correspondents maintain that wanton slaughter by bombs and otherwise of young whales is practiced at certain coast points by irresponsible parties operating from shore. During the year 1905, if I am correctly informed, the total number of bowhead whales caught by the North Pacific fleet was 74. They yielded 118,715 pounds of bone, valued at approximately $593,575. One of the largest catches was made by the *William Bayliss*. She brought to San Francisco 35,000 pounds of bone, valued at $150,000. The total tonnage of the whalers sailing from San Francisco consists of ten steamers and barks and six schooners, with a total tonnage of 3,766. Seven vessels escaped before the ice closed in and are now starting on their spring run north. The former American whaling fleet of some 1,000 vessels, plying all seas of the earth, since the advent of petroleum has dwindled to about 15 sailing from New Bedford, and less than 20 sailing from San Francisco. In 1857 the whaling industry of New Bedford had reached its highest point. At that time its fleet was worth more than $12,000,000 and required 10,000 seamen. Then came the civil war and the discovery of mineral oils, and the whale fishery received its death blow.

WANTON SLAUGHTER OF WHALES.

Capt. A. H. McGregor, of the steam whaler *Karluk*, writing from Herschel Island February 27, says:

The fur trade is not worth the necessary outfit, even if we had the material to trade with, as the Hudson Bay Company is in supreme control. The whaling outlook is not rosy. The business is certainly falling behind. The last two seasons have been discouraging. If the bowhead whale is not protected he will soon be exterminated, not by the whale ship, but by the ruthless slaughter of irresponsible shore fisheries or whaling stations, most prominent of which are Point Hope and Point Barrow. In 1898 at Point Barrow alone they struck and (probably killed) something over 400 whales, only 25 of which were secured. In my time I have seen 14 ships with their boats

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lowered and all fast to whales and not one of them lost. Nowadays it is rare to see two ships securing whales at the same time. Captain Murray, who has a fifty-year experience, has seen between 50 and 60 ships at one time, either fast to whales or cutting in, showing how the whale population has been devastated.

Capt. W. F. Macomber, of the steamer *Thrasher*, writing from Herschel Island, March 3, says:

Regarding whaling, I should say that the bowhead is being gradually exterminated, not so much by catches made by ships, as there are at present only 12 steam and gasoline vessels in the business, but by the irresponsible parties on shore whaling, carried on from Cape Smith—that is, Point Barrow to Point Hope—where whales, mostly young ones, are bombed from the ice floes and boats, with a small percentage of them saved.

The whalers report they have sufficient supplies to subsist them until August with help of deer meat, which they were receiving in large quantities. The vessels were in safe harbors, and no danger was anticipated when the ice broke up. They expected to get out about July 10, which is an unusually early date for vessels to be released.

TREPANG IN JAPAN.

PRODUCT WORTH FORTY CENTS A POUND.

A practical man in the trepang or bêche de mer business furnishes Consul-General Henry B. Miller at Yokohama with the following information concerning this fishing industry:

They are taken from the sea in northern waters from June 1 to August 31. The fishing is usually done by a net about 4 feet in diameter, one side weighted with a chain so as to drag the bottom of the sea, and they are usually found in water from 4 to 5 fathoms deep. A small boat is used, with one man to row it and two men to drag the net, making a usual catch of about 100 pounds. Many of the fish are filled with sand and must be placed in a vessel with water until the sand is expelled.

The larger ones caught in the South Sea Islands are split open, boiled, and dried, but those taken from northern waters are cooked whole just as they are taken from the water. They are placed in a large kettle and covered with cold water and the whole brought to a boiling, when each fish is pierced three or four times with a sharp hook or fork to allow the interior pieces to exude. They are then taken out and placed in a kettle of cold water, and the boiling is repeated with the addition of 3½ pounds of a kind of mint to each 100 pounds of fish. They are boiled until cooked through and are then taken out and placed on a wire grating, laying each fish carefully so as to keep them perfectly straight, and placed over a charcoal fire. A small quantity of the mint used in boiling is burned on the charcoal, and the smoke from this seasons and blackens the fish to a uniform color. They may then be dried in the sun, if convenient; otherwise the drying process is continued over the charcoal fire until 90 per cent of the moisture is removed. After drying they are placed in strong square boxes holding 133 pounds each. Eight of these boxes usually measure a ton for shipment.

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On this same subject Edward Julian King, consular agent at Hakodate, made a recent report on the Japanese discovery of great quantities of trepang fish on the shores of southeastern Alaska, the article appearing in Daily Consular and Trade Reports. Samples of the trepang fish were forwarded by Consul Miller, and will be sent to interested parties upon application to the Bureau of Manufactures.

INDIA WANTS BETTER METHODS.

AN AGENT SENT TO THE UNITED STATES FOR STUDY.

Sir Frederick Nicholson, who is now in the United States on a special mission for the Indian government, is seeking to find out all he can about American fisheries and fish culture, with a view of developing the deep-sea fishing industry on the west coast of India, as a means of increasing the native food supply. In the Madras Presidency, where Mr. Nicholson has long resided as one of the officials, and where the arable soil is only a few inches deep and not very good at that, properly developed fisheries, it is believed, will give a direct food supply to the thousands of poor people who often face starvation from insufficient crops. Mr. Nicholson, speaking on the subject, said:

"At present there are no fisheries to speak of in India. All the fishing is done within 6 miles of the shore, and is carried on by poor people in the most primitive manner imaginable. The fishermen do all their fishing from such primitive craft as canoes, dugouts, or catamarans. Each fishes on his own account. There is some fishing in the rivers and lakes, but these usually go dry in the hot weather, when no fishing is possible. Now, the idea of the government is to systematize and develop the fisheries, so that the number engaged in the industry shall be largely increased. It is also intended to introduce modern methods for curing and canning the fish, in order to save the present great loss from putrefaction. In the end, it is hoped to develop the sea harvest so that, as in Japan, it will eke out the agricultural resources to a degree that will properly sustain its teeming population. By the use of sea food Japan has been able to support a large population on a basis of only one-quarter of an acre of land per capita; but 10 per cent of the people of Japan are engaged in the fisheries industry, whereas in India we have only a little more than 1 per cent so occupied.

FISH IN INDIA SOON SPOIL—JAPAN EXPORTING "FRENCH" SARDINES.

"Fresh-caught fish are often tainted before they can be brought in under the present system. And while drying of fish in the sun is now generally practiced by the natives, they dry them on the sand, so that while one side is baked hard in the tropical rays the other is apt to remain moist and thereby allow an opportunity for putrefaction. Central fish-curing stations along the coast, to be carried on by the government, motor boats, ice, and other things are designed in the way of improvement by the government."

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Sir Frederick found in Japan that Japanese canneries are shipping to America large quantities of sardines under French labels. He also found at Tokyo the finest school of instruction in catching fish, curing fish, and breeding fish that exists anywhere, while other similar schools and experiment stations are scattered throughout Japan. The Japanese Government loans money to the fishermen to enable them to purchase the boats and gear best fitted to their ends. The Japanese use great quantities of fish for fertilizer and the productivity of the soil is greatly increased by the waste of the canneries. The Japanese are looking for a large export trade to America for their high-grade goods. Both the Japanese and the people of India eat the shark and it has been canned to some extent for home consumption.

SHIPPING LIVE FISH.

NEW GERMAN METHOD ACCOMPLISHES IT EASILY.

Consul-General Richard Guenther writes from Frankfort that experiments made in Germany with reference to cheap transportation of live fish have demonstrated that all kinds of fish can live for days outside of their natural element, water, under certain conditions.

This apparently wonderful fact will be easily understood by examining the breathing apparatus of fish. The gills of fish are an organ similar to the human lungs; the blood in them comes up close to the surface. The lungs exchange for the outside air, rich in oxygen, carbonic acid which has been formed in the lungs. On the other hand, the gills of fish are constantly washed by water containing oxygen. The thin membrane of the gills separates the blood in them, vitiated with carbonic acid, from the water containing oxygen and the practical result is the same as with the human lungs. Carbonic acid is exchanged for oxygen.

It had been noticed long ago that many kinds of fish could live out of water for some time, provided that the gills remain wet. The experiments made aimed at keeping the gills wet and to see to it that this moisture be well charged with oxygen. In order to keep the gills wet the evaporation of the moisture of the gills had to be prevented; for this purpose the fish were placed in an atmosphere thoroughly saturated with water vapor. An hermetically closed wooden box was filled with water to the depth of about one-third of an inch, or the bottom was covered with wet rags, which through evaporation kept the air in the box always saturated with water vapor. The fish were placed in a box which was then shut hermetically by the lid.

Through a tube, reaching to the bottom, oxygen was introduced and allowed to escape through a tube in the lid. This oxygen before entering the box passed through several water bottles which thoroughly saturated it with water vapor. In this way the fish are always in a pure oxygen atmosphere and a drying up of the gills is not to be feared. The result of the experiments was surprising. Carp, tench, bleak, and other fish remained in the box for from three to four days perfectly well. When they were then placed into water to be fed they swam about in a lively manner and appeared perfectly fresh.

It is expected that this mode of transportation for fish will become popular, as it is much more economical than shipping live fish in water tanks. By the latter method the weight of every shipment was 93 to 96 per cent water.

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NORWEGIAN RESULTS.

LARGE CATCH AND LOWER PRICES FOR COD.

Consul E. S. Cunningham reports from Bergen that winter cod appeared off the Norwegian coast rather earlier than usual this year.

The catch was about the same as in 1905, and the quality equally as good, both seasons furnishing a particularly fat and fine quality. The winter fishing closed in May, but the spring cod in Finmarken was still to be had in June, when one week showed a catch of over one and a half million of fish. The total number caught was 44,116,000, of which 15,900,000 were hung and 27,404,000 salted. The by-products amounted to 1,073,257 gallons of medicinal cod liver oil, 439,288 gallons of other oils, and 44,397 gallons of roe. The foregoing is an incomplete report, being only to about June 9. The total catch at the close of the year 1904 was 49,600,000, and in 1905, 45,000,000, from which was derived 490,275 gallons medicinal cod liver oil, and 572,920 gallons roe in 1904, and 1,106,978 gallons of oil, and 843,265 gallons roe in 1905. The production of cod liver oil, the only by-product which concerns the American market, is slightly above last year, though the increase is small. It is but proper to say these statistics of the oil production is of the crude oil, and when refined there will be an estimated loss of 10 per cent.

Of this year's production of medicinal cod-liver oil, all excepting about 221,000 gallons is from the winter fishings, which is said to be the best. The quality of the Norwegian cod-liver oil is recognized as the best in the world's market. The season is said to occur at the best time for producing the highest grade of oil. The food of the cod here may have something to do with the quality of oil; then the fact that the manufacturers can obtain as their raw material absolutely fresh livers for steaming is sure to produce a better oil than when they are caught at more remote distance from shore. Let the reason be what it may, the Norwegian cod-liver oil brings the best prices on the market, and from this consular district over 6,000 barrels were shipped direct to the United States in 1905, in addition to shipments from Christiania and Norwegian oil bought in other European markets. The price of medicinal cod-liver oil has declined since the production could be depended upon being so good. At present, oil is quoted at $15 to $17 per barrel of 116 liters.

GULF OF CALIFORNIA.

GREAT VARIETIES FOUND IN MEXICAN WATERS.

Vice-Consul James Viosca, of La Paz, writes regarding the fisheries of the Gulf of California, stating that the following species are found in abundance:

Fish, such as sea bass, rock-cod, red snapper, cuttle fish, sole, and several other species. Whales, such as the humpback, are abundant, and occasionally a few sperm and bottle nose are found, also common seals and the large black fish, which is sought for its oil. Turtles, both the green or common turtle, and the fine hawk bill, which pro-

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duces superior tortoise shell are also found. Man eater, white, hammer head, and other species of shark are being fished for under a concession. The oil is sold locally, while the fins are exported to San Francisco and disposed of to the Chinese at about 36 cents gold per pound, the fiber in the fins being considered by them a great delicacy when served as a soup. The shark skins have not met with much demand. Oysters, clams of various species, as well as crawfish, crabs, and abundant classes of shellfish are to be found. Mother-of-pearl shells are being fished for under concession by two companies, the annual production being about $250,000 in pearls. Some of the concessions could probably be bought for a reasonable price, and the business developed quite extensively.

ITALIAN IMPORTS.

SALT GOODS FROM SCANDINAVIA.

Consul J. J. Roche writes that a great deal of salt fish is imported at Genoa.

The major part comes from Norway, Sweden, and Newfoundland, and is shipped in bulk. There is also a small importation of this fish from England. This kind, of superior quality, is packed in bales of 1 quintal, or 112 pounds each. The market is usually active. Sig. Luigi Marsano, Darsena, Genoa, can furnish price list and particulars. Salt is a Government monopoly, like tobacco, in all parts of Italy, and is not handled by any but the regularly appointed dealers. In regard to communication with the United States, Genoa has the following regular lines of steamers: White Star Line to Boston and New York; North German Lloyd, Hamburg-American, La Veloce, Navigazione Generale Italiana, Lloyd Italiana, to New York; Creole Line to New Orleans, Pensacola, Galveston; Spanish Transatlantic Company to Porto Rico, Cuba, Central America, New York, and Philippine Islands, and various tramp steamers and sailing vessels (not American).

POOR RETURNS.

SHIPPING SALMON TO AUSTRALIA.

Consul L. E. Dudley sends from Vancouver the account of a shipment of salt salmon from a British Columbia firm to an old-established house in Australia, the returns being so inadequate that the opinion is expressed that it will be impossible for Canada to sell goods in Australia if present tariff charges are to prevail. The consignment consisted of 125 barrels and 91 half barrels of salmon, the sales amounting to $2,552 and the various charges to $2,438, leaving a balance due the consignee of $114.

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MINING.

UNDERGROUND WEALTH.

DIAMOND DEPOSITS IN BRAZIL.

ALLEGED FRAUDS PERPETRATED ON AMERICAN PUBLIC.

Consul George E. Anderson, of Rio de Janeiro, reports that it is a little dangerous to generalize too much on conditions surrounding diamond mining in Brazil, but the activity of a number of promoters of such enterprises now in the United States, and the consequent increase in the number of inquiries received at that consulate-general, renders it necessary to lay down some general limits to the prospects of the industry. Mr. Anderson continues:

In offering general discouragement as to mining propositions, I wish to be understood as not reflecting upon all the enterprises now on foot to develop Brazilian mining properties. It is possible, and even probable, that some of them will result profitably, and the reports of mining experts on the country in general are such as to indicate that the country will probably some day produce great returns on mining investments. At the same time the country is full of schemes, which are either out and out frauds or which are based upon claims and facts so slight as to make them little less than frauds.

MINING INVESTORS POCKETBOOKS.

The United States and Great Britain, especially New York, Chicago, and London, are the chief fields of operations for a number of promoters who have never done any mining but what they have done in these cities, and there are a number of so-called mining companies now soliciting stock subscriptions in the United States whose officers are not even certain where their property, or land they claim as property, lies. The president of a diamond mining company, having its offices in New York, wrote me a letter within the past week to ask how near a city of Brazil, near which his company claims property, was to a railroad. And yet this company is probably selling stock upon statements which give a most glowing account of the country in general, the special claims of this property in richness and accessibility, and other representations which are in no way true. On the other hand, there are several reputable companies in the field, the representatives of some of whom are in touch with this consulate-general, who are working claims in good faith and which may succeed. It is a notable fact, however, a fact which is certified to me by men who have had long experience in matters relating to the Brazilian mining fields, that not a single mining company operating in what is known as the

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gold and diamond fields of Brazil has paid a dividend. There may be exceptions to this rule, but as yet I have been unable to locate them.

INACCESSIBILITY OF MINING REGIONS.

Assuming that a mining enterprise having property or claiming to have property in Brazil is pushed in the United States or elsewhere in good faith there are several elements to be considered in addition to those which may be said to exist in all mining enterprises. Chief among these, perhaps, may be cited the special difficulties attending operations in a tropical, mountainous country where there is no railway communication with the mining country for distances representing from 5 to 50 days' journey on mule back. The reports of mining experts indicate that there are diamonds and there is gold to be found in a large territory in Brazil. The diamonds, however, are not found as they are in South Africa in certain large pockets or pipes, the structure and working of which is so well understood. In Brazil the diamonds are found in small pockets covering perhaps many thousand square miles of territory. Little of this territory has been worked with modern machinery, but enough of it has been worked with machinery modern enough to establish certain facts.

The first of these facts is that it is impossible to count upon the value of a property by preliminary surveys or guesses by engineers. The second is that practical mining operations in the Brazilian field must be done with machinery which can not only be readily transported in parts or otherwise on mule back to the first point of operations, but which can later be changed about readily in rough country, in unfavorable rainy seasons, in a country without roads, bridges, supplies, or anything else in the way of conveniences of civilization. It is evident that when one of these small pockets are worked out it must be practicable to move the plant elsewhere at a minimum cost to try fortune in a new pocket. It is evident also that this involves large expenditures, and large capital is required to work such properties. Assuming that a company is formed in good faith, that it owns the property in the diamond country it claims it owns, and that it is managed not only by honest men but by men who know their business, it is evident that many thousands of dollars must be expended before the owners of the property know whether they really have anything or not.

UNCERTAIN LAND TITLES.

Another great trouble in these enterprises is in the fact that there is constant litigation over the matter of titles to land in this country. Brazilian mining laws are very incomplete and unsatisfactory. Immense quantities of land can be had in the mining country for very little money; but generally it so happens, as soon as anything valuable is discovered or developed upon the land taken, that some one else has a prior claim to it, and the company or individual whose energy has developed this value either is robbed of the fruits of energy and expenditure of capital or is compelled to fight for them at an additional expenditure of both. One of the most reliable American concerns now working up country has been compelled to cease work within the past month under an order from a Brazilian court. This company leased certain mining country from a company which claimed to own

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it and which was able to establish a good prima facie title. It went to work, established its machinery, and was fairly successful in work. It now appears that the company from which it leased its property bought the property from certain parties for a certain sum of money and certain stock; that this stock is in a company which has not been properly registered and is therefore worthless under Brazilian law, and that therefore the original owners now want the property, which has been shown to be more valuable than it was when first sold. In the meanwhile the American concern has idle men on its hands, costly machinery idle, and its sole efforts are being devoted to securing what it thought it already possessed.

POINTS TO BE GUARDED.

I think it fair to say, generally, that there should be no investments in mining enterprises in Brazil which do not provide—

First, a large amount of actual cash for capital for prospecting the proposed country. General assurances, even from mining engineers of repute, under Brazilian conditions are good only for a speculation or a gamble as to whether paying property can be struck. There are no "snaps" to be handled with small capital.

Second, a careful investigation, not only of the country to be worked, but of the title to any and all property to be acquired. A requirement of this sort ought to be unnecessary with sensible business men, but the present situation in mining affairs in Brazil demonstrates that there is special need of a warning on this point.

In all this there is especial need of an investigation of the good faith of the mining proposition under consideration. It is a lamentable fact that a large proportion of Brazilian mining enterprises are frauds, and that there are men now in the United States with enterprises which represent nothing more than the money they can get from the American public.

SOUTH AMERICAN FUEL MARKET.

SLOW PROGRESS IN BRAZIL'S COAL-MINING ENTERPRISE.

Present reports are that the work on the Government coal mine enterprise in southern Brazil is not progressing very satisfactorily, and people who have been especially interested in the success of the effort to establish a fuel supply in Brazil are not very much encouraged over the outlook. Mr. Anderson continues:

It seems that there is considerable friction in the actual management of the work where the hole is being sunk, and the attempt to manage American machinery and mining plans upon a Brazilian basis has so greatly interfered with the work that part of the time it is at a standstill. A large amount of money is being expended and the Brazilian Government apparantly intends to establish the coal-mining business upon a practical working basis if it is possible to do so, but it seems probable that the outcome of the present situation will be the development of such trouble that the enterprise will be put in the hands of the foreigners who have furnished the machinery and understand working for coal upon modern lines.

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OPENING FOR AMERICAN FUEL.

American fuel producers who contemplate entering the South American market, and inquiries from the United States indicate that their number is on the increase, should consider that even if this mining enterprise is as successful as the American coal expert has expected it to be there probably will be as much of an opening in some respects for American fuel as there is at the present time. It should be realized that the coal expected to be mined in southern Brazil is not fit for use in its natural state. In fact American mining men would not think of mining such coal in the United States at the present time. The coal veins prospected are thin and the coal is very impure, the slices sent to Germany for examination showing sulphur, slate, clay, and several other impurities.

It is true that when this coal is manufactured into briquettes the fuel produced carries only from 10 to 13 per cent of ash, but it requires water and power to manufacture the briquettes, and while both can probably be had on the spot it by no means follows that the briquettes can be manufactured at a cost which will bring them lower in price, all things considered, than foreign fuel now being imported.

Those familiar with the enterprise believe that the efforts of the Government in its development are directed mainly from considerations for the protection of national interests in case of war. That such a plant as is contemplated will furnish some fuel to the Nation may be taken as a matter of course, and the plan of the Government to run its own railway to the mouth of the mine, to manufacture sulphuric acid from the by-products of briquette making, and to establish the whole enterprise upon as sound an economic basis as possible, will doubtless in time make itself felt in fuel matters along the Brazilian coast.

In the meanwhile Brazilian ports are importing British and other coal in considerable quantities at prices which make the business attractive to American fuel men. The fuel business in Brazil is certain to grow very rapidly in the near future. There is enough of a change in Brazilian industrial methods to promise a more general use of power machinery. There are enough enterprises now on foot to make some difference in fuel matters. With the growing of this fuel trade American interests ought to grow. The business already is here, and it is simply a question whether American coal at American prices can be made more acceptable than the fuel now used.

MINING AND PETROLEUM FIELDS.

There is prospect that the mining business generally in Brazil will be somewhat improved in the near future, and probably with the protection which the present Government desires to give there will be enough serious work to develop other mineral fields than those now being worked—a development which may supply what is now lacking in the Santa Catharina fields. In discussing the subjects of mining the President of the Republic, in his message to the Congress, says:

> It is my duty to insist on the necessity of a law which shall assure to the capital employed in mining the peace and quiet which attracts and retains it. We possess mining districts of sufficient value to employ large sums of money which will be forthcoming if the law assures facilities for acquisition and freedom from subsequent

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disputes. The Government is continuing the exploration of the coal areas of the south, the industrial value of which has been conclusively proved.

Besides the exploration of the coal fields of Rio Grande do Sul and Santa Catharina, soundings will within a short time prove whether or not we can count on veins of petroleum, especially in Paraná, as the distinguished foreign expert in charge of the work expects.

Fuel men in Rio Janeiro who are familiar with the country mentioned generally expect no results from the effort to locate oil areas. There is general encouragement, however, over the efforts of the Government to pass such a mining law as will give to investors the protection which is now practically denied them.

TIN SUPPLY.

STRAITS SETTLEMENTS TURNING TO MACHINE OPERATIONS.

Consul-General D. F. Wilber, of Singapore, supplies the outlook on the tin production of the Malay States as viewed by local newspapers. Commenting on the present price for tin, and the future supply, the Malay Mail says:

So long as there were alluvial deposits of tin in abundance, machinery could not compete in price with the crude methods of the Chinese, but now a glance at the mining situation here would seem to show that a change is rapidly being effected. A mine worked with modern appliances is said to be paying well, while its immediate neighbor is leading a hand-to-mouth existence under the methods of what we must now call the past. Also it is noteworthy that a mine which had been abandoned at Serendah will probably be started again, as deep boring has proved that tin exists under a stratum of clay hitherto not suspected of concealing wealth below.

Let us say, then, for the sake of argument, that we have used up the greater part of our alluvial deposits; yet even so, there does not seem to be much cause for fear for a long time to come. We have started to tap the depths with, it is seen, very favorable results, and, with the extension of the modern system, there seems every prospect of our maintaining our output at least at a level calculated to keep our trade in tin where it stands to-day, while if the old ground is worked over again by economic methods, as it probably will be, we may even see our previous records beaten. Whether it would be particularly pleasing to our miners to see such an increase is a point about which there must be some doubt; but at any rate they are reaping a fine harvest now, and there seems at the present moment absolutely no reason why the price should not advance considerably more.

The statement has been made that in Pahang, the greatest of all our States, the tin deposits have been practically untouched, but we now hear that little alluvial tin is found in the Pahang valleys, as in the other States of the federation, but that it is found near the hilltops instead. This naturally makes the cost of winning it more expensive; yet, if anything like the present price can be maintained, we have not much to fear so long as we have the metal in plenty. But more difficulty with regard to procuring the tin means a decreased output, and thus it may be that we have in this an important factor relating to our contribution to the world's industry in the future.

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RESERVING THE PRODUCT.

The Singapore Free Press states that—

No wiser step was ever taken in the Straits than the practical prohibition of the export of tin ore from the Federated Malay States by a severe export duty. That simple action "choked off" a well-organized American attempt to capture the bulk of the out-turn, to export it to the United States, and then to create a great smelting industry which should have, in view of the heavy import duties on tin plate in the United States, put the command of the tin-plate industry in the hands of that combination.

Even in spite of the supplies from Cornwall, Banca, and Billiton, Australia and Bolivia, the Malay Peninsula holds the key of the situation as far as concerns the world's tin supply. It may seem to some, with the precedent of the export duty to places outside the colony—thus saving our smelting industry and retaining the Straits control of its own production—that were it feasible an extension of this idea to 10 per cent more on slab tin to all places of shipment other than Great Britain would have a very beneficial effect on the tin-plate industry, which is now, though an effort has been made to deny it, in a somewhat precarious position.

PRICES AND PROFITS.

R. L. Paxton writes from Cardiff to the Pall Mall Gazette that the decrease of 93,000 boxes in British tin-plate exports last year is of small moment in comparison with the fact that at present prices British manufacturers are making little or no profits. Mr. Paxton continues: "As a matter of fact practically the whole of the world's output of tin is derived from within the British Empire. We supply Russia, Germany, France, and the United States with almost all the tin they require. In addition to the tin we mine in this country we imported last year 39,755 tons, of which 37,520 tons came from the Straits Settlements and Australia. Of this we reexported 29,157 tons to other countries to enable them to compete with us in making tin plates, etc. If the United States had been in this favorable position instead of the British Empire Mr. McKinley would have captured the world's tin-plate trade long ago, and we should have had to buy our tin plates from the Americans at whatever price they liked to charge."

[The United States can not levy an export duty, as it would be unconstitutional.]

WELSH INDUSTRY.

REDUCED PRODUCTION OF MILLS.

Consul D. W. Williams, of Cardiff, reports that the conciliation board of the Welsh tin-plate industry held its annual meeting June 14 and renewed the present wage agreement for another year. The wages are almost at a minimum, but owing to the depression in the trade the men did not feel justified in asking for any increase.

All the tin mills, with few exceptions, closed during the first week in June in order to reduce production, but the stop-week failed to strengthen the market. There was an increase in the exports to America during May, but it is feared that the disturbance in the tinned-meat industry will reduce the exports greatly during the next quarter. The American market is the cause of much concern to the trade. In 1904 the United States bought 20 per cent of the Welsh

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exports. The demand fell away in 1905, but the loss was only about 2 per cent of the total exports. The situation in 1906 is much more serious, for the exports to the United States during the first five months show a loss of 7,637 tons, a decrease of about 25 per cent as compared with the corresponding period last year, leaving the American demand at only 13 per cent of the total exports.

The American demand for Welsh tin plates is fostered by the rebate clause in the tariff act, and since only a few large firms profit from it any reduction on account of the tinned-meat troubles will be sorely felt. The repeal of the rebate clause would prostrate the Welsh tin-plate industry for a time, and this state of affairs accounts largely for the good understanding between masters and men.

TIN AND COPPER.

INCREASED PRICES WILL PROBABLY REMAIN—TIN OUTPUT NOT INCREASING.

The commercial problems arising out of the increasing demands for tin and copper are attracting a good deal of attention, both in this country and in Europe. The trade prices at present are said to seriously restrict many industries which largely use these metals.

Although part of the advance in the prices of tin and copper which have been witnessed of late has been due to speculative operations, much has been genuine and has been caused by rapidly increasing consumption. In 1880 the world's production of copper was 154,000 tons. In 1890 it had increased to 270,000 tons. At present it is over 700,000 tons, so that copper production has more than quadrupled within twenty-five years. The United States now supplies 52 per cent of the world's output, and Mexico is next with 11 per cent. In 1880 the world produced 38,000 tons of tin and in 1890 55,000 tons. In 1900 the production exceeded 80,000 tons, and for the past five years has averaged more than 90,000 tons. At the present time 50 per cent of the world's output comes from the Federated Malay States, 17 per cent from Bolivia, 15 per cent from the Dutch East Indies, 6 per cent from Australia, 5 per cent from Wales, and 7 per cent from other countries.

MORE OF THE METALS REQUIRED.

Experience has proved that largely increased quantities of copper and tin are required. Copper production has considerably increased within the past five years, but tin production has not increased much within the same period. The fact that gold production throughout the world has trebled within the last fifteen years naturally tends to heighten the prices of metal in general and indicates that the high prices are not merely temporary. The consumption of copper will not fall off, or of tin either. The production of copper is expected to increase, but with tin there is not the same prospect unless the discoveries in Alaska should reveal a new field from which to obtain tin. The fact that 50 per cent of the product now comes from the Malay

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States and that the labor question is becoming more difficult there has some effect on the price. Recently the cultivation of coffee and rubber has been successfully established in some parts of the Malay States which were formerly considered good tin districts. It does not appear that the Straits production of tin can increase in the future as it has done in the past twenty years, and it is even doubtful whether the present output can be kept up. The production of Bolivia has increased of late, and in a smaller degree Australia may likewise yield larger quantities of tin.

TIN MINES THAT PRODUCE LESS TIN.

The African tin fields, so systematically and thoroughly "boomed" during the past year, are pronounced by the London Times a failure, and no other new deposits have been reported. Tin mining in Great Britain has dwindled to very small proportions. The output of the Cornish mines aggregated 10,200 tons of tin in 1870, which had fallen in 1904 to 4,200 tons. The London Times says in a dispatch from Sheffield that the difficulty of obtaining tin at profitable rates is shown by the fact that manufacturers are finding it cheaper to melt down old stock. Tons of teapots, dish-covers, and other articles of patterns for which there is now little sale are being melted and used up again in preference to purchasing tin at present rates. The Times also says that nearly the whole of the tin-plate works at Swansea have been stopped, and the few which are kept going will close for a week in August. Stocks have been reduced at Swansea on June 10 to 162,515 boxes as compared with 237,026 boxes a year ago.

NEW CALEDONIA.

COAL DEVELOPMENT IN FRENCH COLONY.

Consul F. W. Goding, of Newcastle, reports that great efforts have been made during the past few years to develop coal mining in parts of New Caledonia.

This is desirable, from a French point of view, as the colony would cease to depend on Australia for its coal supply, while cheap fuel would greatly aid local industries. A local coal supply would also be useful to the steamers now trading to the colony, while a large trade would be done when the Panama Canal is completed, as New Caledonia would become an important port on the direct route from Australia to America and Europe. Accordingly mines were opened in several places in the interior, and an analysis of the coal showed that it was of good quality, well adapted for steaming and manufacturing purposes. A few weeks ago a party of French naval officers inspected the mines and expressed themselves much pleased with the progress of the work. It was, however, urged that to make the enterprise a success the railway, which, on account of pecuniary difficulties, has been stopped, must be continued to the mines, so that the coal might be readily brought to the seaboard. News has just been received that the construction of the railway will be pushed as far as Patta. Thus another coal-producing center is added to the list.

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HONDURAS.

EXPENSE OF MINERAL PROSPECTING.

Consul W. E. Alger answers an American inquiry concerning prospecting in the department of Olancho, Honduras. He writes from Tegucigalpa:

Foreigners are granted the same prospecting and mining rights in Honduras as natives, are subject to no tax for prospecting, and will find ample provisions such as beans, rice, plantains, corn, and fresh meats at any of the small towns or settlements. Prospecting tools should be brought along. Saddle mules cost $125 to $250 Honduras money (a dollar worth 38 to 48 cents United States currency), and pack mules $80 to $125. The Olancho region can be reached either from Amapala on the Pacific, or Puerto Cortez on the Atlantic. A guide, who acts as servant, can be secured at 50 cents to $1 per day, or $10 to $25 per month and board. A prospector with experience stands a good chance for success. There have been many failures of mining companies in Olancho, but nearly all that have started operations for twenty years have been of the wild-cat class, the money never being used for actual development.

COAL AND IRON.

MARKET SITUATION IN GERMANY.

The price situation in the German iron market is reported to be stationary, but the activity in all the departments of trade continues unabated. The production of pig iron in the month of May was 96,700 metric tons greater than in the corresponding month of last year. The recently ratified treaty between Sweden and Germany excludes the possibility of an export duty on Swedish ores before the end of 1910. The reopening of the question of giving export bounties has resulted in the decision of the pig-iron syndicate to continue the bounty for another quarter, but its prolongation beyond the end of September is made conditional upon the adoption of a similar course by the coal syndicate. The latter syndicate has already rejected this proposal. The coal syndicate has been compelled to let its seaport customers buy English coal, and is importing it into the Rhine country itself. But these measures have not sufficed to relieve the scarcity.

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TRANSPORTATION.

RAIL AND WATER ROUTES.

CONTEST IN MEDITERRANEAN SEA.

GERMAN SHIPPING LINES STEADILY EXTENDING SEA POWER.

Consul-General Robert P. Skinner, in a letter from Marseille, states that a remarkable shifting of sea power is taking place to-day in the Mediterranean, the final adjustment of which is awaited with interest and anxiety. Mr. Skinner continues:

Until a year ago the German flag was inconspicuous in the Mediterranean. German steamers to the United States and to the Far East called at Italian ports only, principally for passengers and emigrants. The only important concern then operating from Marseille was the East African Company, with ships going as far as Durban, Natal. Since then a complete change of policy has been adopted, with a consequent feeling of uneasiness among shipowners of other nations, and probably also of irritation in circles accustomed to regard as peculiarly their own that large volume of trade handled at Marseille.

The first visible sign of the German shipping invasion was the establishment of a weekly line of fine and fast North German Lloyd steamers between Marseille and Alexandria, where the French Compagnie des Messageries Maritimes had exercised what was virtually a monopoly for years. Next came the announcement of a semimonthly service organized by the German Levant and North German Lloyd companies between Marseille, Constantinople, Batoum, and intermediate ports, upon which also excellent passenger steamers are employed. The North German Lloyd Company a short time ago put on a steamer between Marseille and the ports of the Danube, but for the moment has given up this service owing to some difficulties with a steamer which proved to be too large for river navigation. The same company has arranged to have its steamers from Australia call at Marseille every month, thus duplicating present French and British services, and it seems a fair inference, although it is not announced, that the same steamers will call at this port on their journey outward.

Finally, the Hamburg-American Company announces a new monthly service from Marseille to the Persian Gulf. Complaint is voiced in this country that this sudden accession of interest on the part of German shipowners in this part of the world is not explained by traffic requirements. At Genoa numerous German lines call regularly, and it is evident that a harmonious system is being arranged, whereby every region will be connected eventually and made to constitute an efficient feeder for German commerce and probably also for the heavy German railway investment in Turkey.

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FRENCH STEPS TO PROTECT INTERESTS.

It is scarcely to be presumed that old French and British companies, which have worked together fairly well in the Mediterranean and the Black seas, will fail to answer this challenge. In the recent general assembly of the stockholders of the Compagnie des Messageries Maritimes, the most important of the French navigation companies, an increase in the capital stock of 30,000,000 francs ($5,790,000) was authorized for the purpose of adding to the fleet and to assure its future. At this meeting it was reported that the company's fleet consisted at the end of 1905 of 67 steamers in commission and 2 cargo boats under construction, reaching a total volume of 297,800 tons gross tonnage.

The incidents above mentioned scarcely appear in the official statistical return, as all but one of the new German services were nonexistent in 1905. Nevertheless even official statistics exhibit a great increase in the amount of German tonnage at Marseille. In 1891 the German shipping at Marseille amounted to 136,713 tons; in 1900 to 170,853 tons; and in 1905 it was 765,634 tons. This rapid increase appears to bear very little relation to the increase in the general business of the port, which, measured by the tonnage of shipping, amounted in 1905 to 15,623,171 tons, against 13,353,473 tons in 1904.

The consul-general furnishes statistics which show that German merchandise handled at Marseille increased from 106,616 tons in 1900 to 170,401 tons in 1904, and to 216,708 tons in 1905, but the German vessels arriving and leaving the port quadrupled in tonnage. British figures show a decrease in merchandise traffic from 1900, when it totaled 1,109,548 tons to 1,068,229 tons in 1905; but British shipping rose from 3,082,564 tons for vessels arriving and clearing at Marseille in 1900 to 3,965,098 tons in 1905. The French merchandise handled at the port advanced from 3,111,192 tons in 1900 to 3,248,859 tons in 1905, the French ships correspondingly advancing from 6,448,554 to 7,865,520 tons burthen.

RUSSIAN OCEAN EFFORTS.

STEAM NAVIGATION LINES—ODESSA TO VLADIVOSTOK.

Consul Thomas E. Heenan writes from Odessa that since the loss of territory and of much sea front in the Far East the Russians are endeavoring to recover the lost ground. He sends the following translation of a Russian publication which is characteristic of these exertions:

Several commercial men have succeeded in raising capital and creating a new steamship company for the maintenance of communications between Odessa and Vladivostok. This new undertaking has acquired seven steamers, one of 7,000 tons capacity, and efforts have been made to include this steam navigation line in the direct over-sea communications. It is reported that this new company is about to enter into an agreement with the "Russian Steam Navigation and Trading Company" for a joint maintenance of communications between Odessa and foreign ports. Four steam navigation companies are already in operation in the southern over-sea connections: The Northern, the Russo-Asiatic (or East-Asia Company), the Volunteer Fleet, and the Russian Steam Navigation Company. All of them are making great efforts to develop

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the goods traffic by sea to the Far East, especially the Northern Steam Navigation Company, which possesses large capital, a great number of steamers, and a well-trained commercial staff organized by the company's head, the well-known authority on steam navigation, P. G. Merck.

NEW LINE—RUSSIA TO NEW YORK.

Vice Consul-General John Mueller reports from St. Petersburg that at last a direct steamer line has been established between Russia and America. He writes:

On or about June 27 a regular line of steamers will be opened between Libau and New York with fortnightly sailings from both ports. It is hoped that by this enterprise the trade between the two countries will be largely increased. These steamers will be engaged in the transportation also of passengers, offering the Russian emigrants a direct and regular line of reaching their destination. The steamers are to sail under the Russian flag and will be fitted out with particular view to emigrant transportation. They will accommodate (in accordance with the laws and regulations of the United States) from 1,000 to 1,200 emigrants, besides first and second class passengers.

IMPROVED WATER SHIPPING.

QUICK SCHEDULE MOTOR BARGES IN FRANCE—SHIPMENTS INCREASE.

Vice Consul-General A. E. Ingram, writing from Paris, states that France possesses an admirable system of canals and navigable rivers, and that the improvement of these waterways is receiving at the present time considerable attention.

It is estimated that 110,000,000 tons of merchandise are transported each year in France by railroad and 33,000,000 tons by water. This latter method of transportation is slowly increasing, but in order that it may do so rapidly it is necessary that the antique method of hauling the canal boats and barges shall be improved. Accordingly, the company "Messageries Fluviales de France" has just inaugurated a regular weekly service of automobile canal barges (Automoteurs-Porteurs) between Paris and Dunkirk. The journey is now made in nine days (instead of two to three months as formerly), and a cargo of from 26 to 27 wagons of 10,000 kilos (approximately 10 tons) each of merchandise is carried at a cost of from 40 to 10 per cent (according to the classification of the goods) below the charges made by the railroad. There are four new boats running on this service, all fitted with patent removable propellers of the Fernez system.

A similar weekly service is also arranged between Paris and Valenciennes in from five to seven days, and from Valenciennes the goods can be shipped by rail to Antwerp, which takes another five days, making a total of twelve days for the entire journey instead of from two to three months as formerly. This speed compares favorably with the slow freight trains known as "petite vitesse." These services are only in their infancy, and their progress will be watched with interest as this mode of transportation to and from the port of call of trans-Atlantic liners might well be used for certain classes of merchandise that do not need quick delivery.

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ORIENTAL ENTERPRISES.

PROMOTION OF TRADE BY NEW STEAMER LINE.

Consul-General David F. Wilber forwards from Singapore a Japanese newspaper statement to the effect that Siamese trade is now almost monopolized by Germany, while Japan has been entirely excluded from the field.

Of the steamship tonnage of 514,000 that entered Bangkok in 1904, 60,000 tons were British, and 87,000 tons Norwegian, while the tonnage of German ships amounted to 323,000 tons, or more than 60 per cent of the total. The total foreign trade of Siam for 1904 was only 75,000,000 yen (yen=49.8 cents), composed of 35,000,000 yen imports and 40,000,000 yen exports. Although these figures are not large, the foreign trade of Siam has been making remarkable progress during the last few years. The amount of silk fabrics, straw braid, porcelain, and other Japanese articles directly imported into Siam from Japan in 1905 was only about 100,000 yen, but a considerable quantity of Japanese goods were imported from Hongkong and Singapore. The value of Japanese matches, for instance, imported into Siam in 1905 in this manner is estimated at 500,000 yen, and the indirect import of Japanese coal is also very considerable. The total amount of Japanese articles brought into Siam during 1905, directly and indirectly, is estimated at not less than 5,700,000 yen.

Turning to the importation of Siamese articles into Japan, the writer observes that the figures for last year reached 5,700,000 yen, the principal goods imported being rice and teak wood. This shows a great advance as compared with previous years. Yet, despite the fact that the future of Siamese trade is very promising, no Japanese shipowner has hitherto devoted any attention in this direction. The opening of the new Japanese steamer service from Hongkong to Bangkok it is hoped will prove a prelude to the extension of trade to the South Seas and in other directions.

LOWER STEAMSHIP RATES TO AFRICAN ISLANDS.

Consul Maxwell Blake, of Funchal, Madeira Islands, is informed on good authority that the Woermann Steamship Company, a line that plies between German ports, Madeira, Canary Islands, and the coasts of Africa, is shortly to establish a regular service from Antwerp and Hamburg to the Seychelles Islands, where it is said great quantities of phosphate rock and extensive guano deposits have been uncovered. In order to secure to themselves this trade against the competition of the British India Steamship Company, it is announced that they have reduced the prevailing freight rates between these points 50 per cent.

VENETIAN IMPROVEMENTS.

NEW FEATURES OF RACING MOTOR BOATS.

Consul Paul Nash makes a report from Venice on improvements to motor boats, as follows:

A naval architect told me that some of the high-power motors in the Monte Carlo races had a universal joint in the shaft, between the motor

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and the thrust bearing, so that the possible deviation of the shaft from a straight line, through vibration, or the straining of the boat, would not affect materially the running of the motor. My informant believes the use of such a joint is very greatly to be recommended, even for smaller powers. He also told me that rigidity in the motor beds was, in various cases, obtained by the use of peculiarily concaved timbers, bolted together—a type of construction which I have never seen at home. In other boats steel girders were used for this purpose. Another feature of interest was the seemingly exaggerated precautions against eddies, such, for example, as tapering the end of the shaft to a point beyond the propeller, and also the knife-edge of the stem. In a series of experiments made last year by a Scotch designer, the difference in the fineness of the stems of ships has been shown to influence their speed very materially, and this seems to have been taken into account in the construction of the racing boats of this year.

RAILWAY DEVELOPMENT.

NEW LINES PLANNED FOR ORIENT.

AMERICAN CAPITALISTS HAVE SUPERIOR ADVANTAGE IN TURKEY.

Consul J. B. Jackson, of Alexandretta, advises that there has recently been much comment in Turkish official and commercial circles relative to the proposition of constructing a railway between the port of Alexandretta and the city of Aleppo, about 90 miles inland. The consul continues:

For many years Alexandretta has been the port of Aleppo, with its population of 200,000, and a vast surrounding country, inhabited by several millions of people. The imports and exports show a substantial increase in value for the past two years, and having averaged annually 77,745 tons, valued at $18,624,554, all of which has been carried between Alexandretta and the interior on camels, horses, donkeys, and wagons. The usual time occupied by a caravan traveling to Aleppo is four to six days, with numerous stops and delays, often incurring damage to goods by the frequent loading and unloading. The charges for transportation are exorbitant, the present price being about 222 piasters current, equal to $7.72 per ton, for the 90 miles.

A RESOURCEFUL REGION.

No doubt the volume of business would rapidly increase as soon as such a railway is constructed, as it would pass through a very fertile country which is now poorly cultivated, owing to the excessive cost of transportation of products to suitable markets. Such a railway would also connect with a vast country beyond, reaching even into Mesopotamia, in which there are no modern American or European farming implements whatever.

The cotton industry is fast growing in this district. In 1904 the exportation of cotton was 1,316 tons, and in 1905, 1,908 tons, an increase of 45 per cent. A large quantity of grain is annually shipped which would come over this line, and which in 1905 amounted to 15,646 tons, valued at $392,835.

In the country around Smyrna, and also at Mersina, the railroads have been the cause of the introduction of modern implements and

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machinery to the extent that it has completely revolutionized the methods of agriculture and produced large markets for American goods.

CONCESSION CHANCE FOR NEUTRAL AMERICANS.

There have been numerous projects attempted by British, German, and other companies to secure the concession for a railway over this route, but, owing chiefly to international jealouses, it has never been granted by the Ottoman Government. In 1900 a German company secured a concession for a line from Constantinople to Bagdad and the Persian Gulf, and it is understood there was provision made for a narrow-gauge road from Alexandretta to a point beyond Aleppo, where it would intersect the main line, but for some unknown reason that part of the arrangement seems to have been abandoned.

Relative to a concession for a railroad from Alexandretta, it appears that there is good opportunity for investment by American capitalists in this line from Alexandretta to Aleppo, the construction of which will not much longer be delayed.

The construction would not be difficult, as British and German surveys show that no gradient would be more than five in a thousand. The cost of a standard-gauge road (4 feet 8½ inches) has been estimated at from $4,500,000 to $5,000,000.

The Bagdad Railway, which will pass a considerable distance to the north of Aleppo, with a branch running to that city, and the Beirut-Damascus Railway, of standard guage, from Aleppo to Rayak, about midway between Beyrut and Damascus, will act as excellent feeders to a line to Alexandretta. The narrow-guage road from Beirut to Damascus, climbing the mountains with a rack and pinion, is not considered to ever be a competitor with the northern routes. I have talked with some of the most prominent officials and business men of this community, every one of whom is of the opinion that a road from this port to Aleppo will pay from the start, but that early action must be taken to secure the concession.

GERMAN EXAMPLE.

The Germans are year by year investing more money in Asia Minor. On January 31 appeared a notice of the registration of a Constantinople branch of the Orient Bank of Berlin, with a capital of $4,000,000. Its object is banking business of all kinds, especially the furthering of trade relations between Germany and the Orient.

The German Haidar-Pasha Quay Company, which owns the Constantinople terminus of the Anatolian Railway Company, is about to extend its quays and build a new 7,500-ton grain elevator for a British export house, and two other warehouses, each to hold 20,000 tons of grain. A German telegraph service was started last summer from Constantinople to Constanza, the Roumanian port on the Black Sea. There is apparently no difficulty in finding German money for enterprises in Turkey.

ANOTHER ALPINE TUNNEL.

SWITZERLAND AND ITALY WILL HAVE NEW CONNECTIONS.

Consul Edward Higgins, of Berne, reports that the legislature of the Canton Berne has accepted the project for a trunk line called the "Lötschberg," with electricity as motor power, to pass through the Bernese Alps and connect at Brig with the Simplon.

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This new road will require five and one-half years to build, and necessitates a tunnel 13½ kilometers (kilometer=0.62137 mile) long out of an entire length of 56 kilometers. The cost will be about $17,100,000. The steepest gradient will be twenty-seven one-thousandths. It will serve as the most direct means of communication between northern Italy (Milan and Genoa) and the vast district lying to the north and northwest of Switzerland. It will shorten the approach to the Simplon, that now must be reached via Lausanne, and will compete with the Gotthard tunnel railroad. In addition to its value as an international trunk line it will prove of vast commercial importance to central Switzerland, and particularly to the Canton and city of Berne, by affording a direct line with the south that now has to be reached by means of the Gotthard on the east or through the Simplon, which requires a roundabout deviation via Lausanne on the west. The road that has to be constructed will commence at Frutigen, a town near Spiez, a few miles from the lake of Thun, which is in direct communication with the towns of Thun and Pontarlier and with the cities of Berne and Basel. It will merge into the Simplon at Brig and virtually form the completion of that great project. The distance from Frutigen to Brig will be 56 kilometers, from Spiez to Brig 71 kilometers, and from Berne to Brig 113 kilometers. From an international standpoint Paris will be 15 miles nearer the cities of Italy than via the new Lausanne-Simplon tunnel route and about 100 miles nearer than via Gotthard. From Calais northern Italy can be reached with 52 miles less travel than by Lausanne, through the Simplon.

A Federal concession was granted covering the Lötschberg in 1891 and amended in 1897. The Canton has turned over its concession to a syndicate, and the cost will be borne by issuing subvention shares, $4,000,000; preferred shares, $4,600,000; 4 per cent first-mortgage bonds, $5,600,000; and 4½ per cent second-mortgage bonds, $2,900,000, or a total of $17,100,000. The subvention shares will receive no interest until the road is in working order, but the preferred shares will be paid 4 per cent interest during the period of construction. The Canton Berne participates by the purchase of $3,300,000 subvention shares. The syndicate is composed of Swiss and French banks. It is expected that ultimately the Swiss Federal railways will buy the Lötschberg. The work will commence at once.

CANADIAN ACTIVITY.

SIX THOUSAND MILES EXTENSION BY FOUR SYSTEMS.

Consul James H. Worman, at Three Rivers, advises that the Canadian railways are building between five and six thousand miles this year, and the expenditures for same it is estimated will amount to $100,000,000. The work covered is divided up between the various roads, as follows:

Canadian Pacific, 1,270 miles; Canadian Northern, 1,567 miles; Grand Trunk Pacific, 1,900 miles; and James J. Hill roads, 1,000 miles. The Grand Trunk Pacific claims that its portion of these 6,000 miles will be completed before the grain is harvested.

The Dominion government has just voted $10,000,000 for construction of the Transcontinental, which sum with that previously expended brings the appropriation so far made up to $18,000,000. There is much concern among Canadians about the consequence of the recent

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purchase of the Wisconsin Central Railway by the Grand Trunk people. It it feared that the Grand Trunk Pacific will by the acquisition divert Canadian traffic to American lines and American ports. Said one of the members of Parliament, the Grand Trunk Pacific will have its western line built long before the government section of the Transcontinental can be finished. The result will be that the Grand Trunk Pacific will send traffic to Fort William, and from there by the old Grand Trunk to Chicago and Portland.

The Pacific and Eastern Railway has asked the Dominion Parliament for a charter to build a railway from Victoria through the Yellow Head Pass to Edmonton, thence to Fort Churchill on Hudson Bay, claiming for the project the possibility of a very short line to Liverpool. A land subsidy of $12,800 per mile is to be granted by Parliament.

STEAM LINES IN ALASKA.

In Alaska, at the present time, there is practically only one steam railway in operation, which is a 55-mile road at White Pass. Congress, at its recent session, passed a law providing for the construction of other roads. The most important one, commercially, now under construction is the Alaska Central, which will run from Resurrection Bay north to the head of navigation on the Tanana River, the two points being approximately 463 miles apart. This road, when completed, will connect the Gulf of Alaska with the waters of the Yukon and the waters of the interior by an all-American route. Forty-six miles of railroad have already been constructed. Another important road under construction is that known as the Alaskan Short Line, to run from Iliamna, on the west of Cook Inlet and the head of the Alaska Peninsula, across the Kuskokwim to Anvik, on the Yukon. Other railroads are projected.

RAILWAYS AND WATERWAYS.

HARMONIOUS OPERATION AND FAVORABLE DEVELOPMENT IN GERMANY.

The prosperity of the German waterways is explained in part by the fact that the German Government has never regarded the natural and artificial waterways as a source of income, but rather as means of improving the well-being of the people.

The Constitution of the German Empire provides that only such taxes may be levied on natural waterways as are necessary for the support of the special works which facilitate traffic on them. These taxes and tolls for artificial waterways, which are the property of the State, are not to exceed what is necessary for the keeping up of such works. As a matter of fact, the taxes levied on German internal waterways are far less than is permitted in the Constitution of the Empire. The cost of transportation on the German waterways is considerably less than by rail. The freight charges between places which are situated directly on the waterways and are reached without the aid of railways are generally far less than the railway charges, and on long stretches this is all the more perceptible as the State-levied taxes can not be considered.

The relations between the railways and the inland waterways are mainly regulated by the fact that the vast majority of railways, and almost all the waterways, are the property of the State. That is why

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it is possible to arrange that railways and canals shall not enter into competition with one another, but mutually unite in the task of forwarding to market merchandise and contributing thereby to the economical welfare of the country. In France and other countries, where railways and canals are in different hands, there is a great deal more competition and friction in transferring goods.

The German railways, notwithstanding the dimensions of the traffic on the inland waterways, have maintained remarkable prosperity. It appears evident that the harmonious cooperation of the railways and waterways is distinctly to the advantage of the former and has contributed largely to the favorable economic development of Germany during the past 25 years.

VEHICLE TRADE.

GOOD RIO JANEIRO MARKET.

INCREASED DEMAND IN BRAZIL FOR MODERN VEHICLES.

Consul-General George E. Anderson states that it seems quite probable that one result of the wave of municipal betterment which is passing over Rio de Janeiro will be the increased use of carriages and similar vehicles.

At present few carriages are used in the Brazilian capital, street cars, tramways, or "bonds," as they are called, supplying the means of locomotion and transportation for all classes of people for almost all purposes and places. It is the usual thing now to see ladies in evening costumes, gowned for the theater or for dinner with all the embellishments which go with the most up-to-date costumes, riding about in the street cars. This has been largely a necessity both from the hilly nature of Rio de Janeiro, many of the most beautiful residences being quite inaccessible by carriage, and also because of the rough pavements which have existed heretofore. At present, however, miles of asphalt pavement exist, and more is being laid as rapidly as the work can be done. One of the most beautifully paved drives in the world is being completed along the bay, and the demand for smart, modern vehicles for pleasure and general needs is bound to increase.

There is some carriage building now carried on in Brazil, but most of the better grade of vehicles come from Europe, notably France. Prices for the imported vehicles, and indeed for all others, are very high, the import duty of 60 per cent upon the completed vehicle or of 30 per cent upon incomplete vehicles restricting the trade greatly. The carriages now used are mostly victorias and a two-wheeled vehicle in which the driver sits with his "fare," all vehicles having tops. They are generally of fair weight, the rough pavements heretofore demanding strong parts and hard service. Even with the improved pavements the trade will probably continue to demand heavy vehicles.

Names of the carriage makers and carriage dealers in Rio de Janeiro, furnished by the consul-general, will be supplied on application to the Bureau of Manufactures.

WALES.

NO MARKET FOR AMERICAN CARRIAGES.

Consul D. W. Williams, writing from Cardiff about carts and carriages in Wales, says:

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Only a limited number of American carriages, buggies, and wagons, have found their way into Wales, and there is no likelihood that American styles can become popular here at any early date. The reasons are not far to seek. The advent of the road motor has driven all the finer grades of carriages out of business, for the landed gentry and all the wealthier classes travel almost exclusively in their automobiles. The new fashion has become so general that even the railroads are feeling the competition of the automobiles in this land of fine roads, because they are losing the receipts from the "first-class" traveling between all points that can be reached in one day's running. The carriages in hand are still used on state occasions and at funerals, etc., and landaus and other four-wheelers are in demand for hire, but the motor bus will soon drive all the latter out of business, and the automobile pageant at the Spanish marriage points to the disappearance of the state carriage.

As for the cheaper grades of carriages, they have never been able to displace the cart or the two-wheeler in Wales, and the writer has not seen a single American buggy in this country. Cæsar records that the two-wheeler was popular in Britain in his day, and it has held its own in the island to this day. There are twenty or more different styles to be seen on the streets of Cardiff, ranging from the low-wheeled gambo, suitable for hillside work, up to the hansom cab, and including drays, carts, spring runabouts, and traps of several styles, gigs, and cabs, not to mention all sorts of push carts. Wales is as much the land of carts as it is of mines, sheep, and song. It is not uncommon to see a family trap, carrying at least six persons, wheeling swiftly by behind one of these nimble-footed ponies. As a tribute to the Welsh pony it may be noted that the writer saw one on Whitmonday which was cantering in the shafts of a wagonette carrying 14 persons.

The Welsh carts and traps are high priced, however, and this gives an opportunity to the American manufacturer. Instead of trying to force American styles on the British people, it would pay them to copy the British styles and offer the classes of goods that the British are in the habit of buying. This suggestion applies in many lines besides carriages and carts. With the advantages derived from more skillful labor, more perfect machinery, and cheaper lumber, these Welsh carts and traps could be manufactured much cheaper in America and sold here at a handsome profit.

GERMANY.

AMERICAN CARRIAGES CONSIDERED TOO LIGHT.

Consul J. I. Brittain, of Kehl, called on several carriage dealers in Strassburg, in reference to the introduction of American carriages, etc., and makes the following report thereon:

I was informed by one dealer, who also manufactures carriages, that he imported American vehicles thirty years ago. He remarked that the carriages were well constructed, yet were too light to suit the Germans; also stated that on account of the very narrow streets in old German cities wagons are required which can turn around in a very small space; the front wheels must be small enough to turn completely under the body of the carriage. He claimed that the front wheels of American carriages and wagons, especially of carriages, are too large; consequently there is little demand for them. Another dealer made similar remarks, stating that he imported American carriages some

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twenty years ago, but had none in stock now; occasionally during past years he had imported English and French carriages.

People are not accustomed to drive about in carriages here as in America, consequently such vehicles as buggies, etc., are not in demand. Landaus and cabs are the chief vehicles in use here. To increase the export of American vehicles to this part of Germany it would be of great importance to first study the styles of vehicles in demand, and the tastes of the people, and then manufacture accordingly.

ALGERIA.

CARRIAGES FOR PERSONS AND FREIGHT.

Consul James Johnston, of Algiers, in replying to American inquiries, reports that the prospects of business in Algeria for American builders of carriages are not encouraging. He writes:

There are a few American carriages in use in and about this city, but as a general rule they do not meet the requirements of the country. The principal users of light carriages in Algeria are the peasant proprietors, and they invariably require a carriage that will take goods as well as persons; so that vehicles built here are almost always of this class. They are also always provided with a specially powerful brake, rendered necessary by the hilly nature of the country. There is a prejudice against vehicles of the buggy class on account of the numerous sharp turns in the roads in the hills, and low fore wheels are considered safer.

Another difficulty in the way of trade is that people will not buy a carriage without seeing it, and to send vehicles on consignment would be running too great a risk.

Automobiles are very extensively employed in the colony, but the French makes are naturally preferred and have a strong hold on the market. There are many large and fine establishments in this city where automobiles are found for sale and on hire. [The addresses of the five firms named by the consul can be obtained from Bureau of Manufactures.] Correspondence addressed to these houses must be in the French language.

MARTINIQUE.

AMERICAN CARRIAGES GROWING POPULAR.

Replying to a Cincinnati request, Consul John F. Jewell supplies information as to the importation of vehicles in Martinique.

No vehicles are kept in stock, but are ordered on commission chiefly from the correspondents in New York, with whom the local merchants do what little business there is to be done in this West Indian island. There are three leading carriage merchants [addresses can be secured from Bureau of Manufactures]. There is a sale for cheap carriages in Martinique and the American carriages are becoming more popular. Two of these firms import carriage materials from America and keep them in stock. This business is increasing and is becoming important. On carriages ready-made there is a customs duty of 60 francs (franc = 19.3 cents) on carriages weighing 125 kilograms (kilogram = 2.20 pounds) and over; and 150 francs on all weighing under 125 kilograms. This regulation makes the sale of very light buggies and carts prohibitive.

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MISCELLANEOUS.

WORLD TRADE MOVEMENTS.

EXPORT OF FLOUR FROM UNITED STATES.

CHARGES AGAINST AMERICANS—INCREASED COMPETITION.

The Millers' National Federation, which recently met in Milwaukee, was addressed by H. B. Tasker, of London, England, the representative of the flour trade association of the British capital, who made serious charges against the methods of some of America's leading millers.

Mr. Tasker declared that twenty-five years ago the milling industry in this country was far ahead of that of the United Kingdom, but that the English miller had gone ahead and improved his product while the American output had deteriorated. He charged the falling off of the American export trade to the attempts of the millers to palm off an inferior article of flour upon foreign customers. He spoke of the practice that had grown up by which false brands were placed on export flour. Bakers' flour, he said, had in many instances been branded as "patent" flour, which served to injure the manufacturer in the long run. He said that flour from Kansas was especially liable to be wrongly branded.

There was some intimation in reply that Mr. Tasker, as a foreigner, may have been prejudiced. S. Thurston Ballard, of Louisville, Ky., declared that the British millers were making money selling batter to their customers, and that some of them were making 100 per cent profit. He said that he visited a mill in London some time ago and found sacks attached to spouts on every floor. Mr. Tasker said that he was delighted to hear that English millers were making 100 per cent profit, but he had to come to this country to learn the fact. He said that Europeans are rapidly adopting American methods in manufacturing flour and that even Japan has built a large number of mills equipped with the latest and most improved machinery and is preparing to supply the home market.

AMERICAN MILLERS HOPEFUL.

The American millers as a rule do not share the gloomy outlook pictured by Mr. Tasker. B. A. Eckhardt, president of a large milling company in Chicago, declared that the American miller had been discriminated against by transportation companies and that wheat had been carried abroad at much lower rates than flour, but this had been corrected through the influence of the Federation, so that now wheat and flour are practically carried on a parity. The Federation had

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also succeeded in having remedied the methods followed in London by the steamship companies that enabled them to charge unwarranted prices for unloading flour in the British capital.

The consensus of opinion of many of those in attendance was that there would be a good wheat crop this year and that this would help all concerned. The millers in attendance were unusually interested in the efforts to improve trade conditions, which have been deteriorating. Argentina is becoming an increasingly prominent factor in the world's wheat supply. The Canadian Northwest has been rapidly developing as an exporter of wheat. The British milling capacity has been increased enormously since the crop failure of 1904 in this country practically putting American flour out of the English market. Belgium has, since 1895, changed from an importing country of large proportions to an exporting nation of equal proportions. The Chinese boycott, South American excluding tariffs, and a loss in Brazilian trade due to the Argentina wheat milled in that country have had an injurious effect on the export trade, while the warm winter of 1905–6 decreased American consumption of white flour.

EXPORTS OF PETROLEUM.

DECREASE IN ILLUMINATING OIL AND OTHER PRODUCTS.

A large decrease in the exports of petroleum products in April was followed by a further decline of 4,500,000 gallons in May. This is accounted for in part by the heavy shipments during preceding months, which are thought to have been in excess of actual requirements.

The falling off has been more marked in shipments to the Far East, where the Sumatra product has found favor by reason of its lower cost. Russian exports to the United Kingdom have been resumed, but it will be a long time before the shipments can be made in the same volume as before the destruction of Baku. In the meantime European markets are obtaining increased supplies from Roumania and Galicia.

The exports during the first five months of the present year show an increase of over 32,000,000 gallons, and the decrease during April and May was, therefore, looked upon as only temporary. During the five months there was a decrease of 16,500,000 gallons in the exports of illuminating oil, due mainly to the decreased shipments of case oil to the Far East, but the shipment of lubricating oils showed an increase of over 4,000,000 gallons during May. The total amount in gallons exported during the first five months of the present calendar year of the various products, as also the exports during the corresponding period of last year, were as follows:

	1905.	1906.
Crude	38,179,126	50,096,847
Illuminating	335,237,088	318,724,260
Naphthas	11,895,453	16,907,783
Lubricating	40,948,989	70,195,012
Residuum	25,392,731	27,974,808
Total	451,653,337	483,898,710

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AMERICAN REPUBLICS.

EXTENT OF TRADE WITH UNITED STATES.

A monograph has been issued by the Bureau of Statistics describing the commerce between the United States and the countries south of us, and in which a table is given showing the value of the merchandise exchanged, as well as the aggregate of the exports and imports of the several countries. It will be observed that of the total value of merchandise imported during the year included in the tabulation, by Mexico, the West Indies, Central and South America, aggregating $730,600,000, the imports from the United States were less than 26 per cent. On the other hand, the aggregate value of the exports of those countries was $1,002,800,000, of which the United States purchased nearly 35 per cent. The annexed table shows the imports and exports of the various countries named and the share thereof drawn from or sent to the United States in the latest year for which statistics are available:

Country.	Imports.			Exports.		
	Total.	From United States.	Per cent from United States.	Total.	To United States.	Per cent to United States.
	Millions of dollars.	*Millions of dollars.*		*Millions of dollars.*	*Millions of dollars.*	
Argentina	197.9	27.9	14.1	311.5	15.2	4.9
Bolivia	8.3	.6	6.7	8.9	.0	.0
Brazil	125.8	14.0	11.1	191.4	96.4	50.4
Central America	20.3	8.8	43.3	31.3	13.2	42.2
Chile	57.4	5.1	8.9	78.8	11.2	14.2
Colombia	11.1	4.9	44.3	18.5	6.8	37.0
Cuba	94.8	43.0	45.3	110.2	95.3	86.5
Ecuador	5.4	1.4	25.3	9.1	2.3	25.8
Guianas	12.0	2.9	24.2	13.8	3.4	24.6
Haiti	4.9	3.7	75.5	1.3	1.2	94.1
Mexico	57.6	50.7	57.9	120.3	82.2	68.3
Paraguay	3.6	.1	3.5	3.2	.0	.0
Peru	20.9	3.8	18.0	19.8	1.8	9.3
Santo Domingo	3.0	1.8	60.3	5.2	3.6	68.0
Uruguay	26.0	2.2	8.5	38.6	1.8	4.6
Venezuela	5.4	1.9	35.9	7.7	2.7	35.7
West Indies[a]	46.2	16.5	35.1	33.2	13.1	39.5
Total	730.6	189.3	25.8	1,002.8	350.2	34.9

[a] Except Cuba.

Porto Rico, now a customs district of the United States, is not included in the above list. The total value of the merchandise entering the island in the fiscal year 1905 was $16,536,259, of which $13,974,070, or 84½ per cent, was from the United States. The value of the merchandise shipped out of the island in the same year was $18,709,563, of which $15,633,145, or 83½ per cent, was sent to the United States.

MANUFACTURING PROGRESS.

SOUTHERN STATES MAKE GRATIFYING EXHIBIT.

The Manufacturers' Record, of Baltimore, has prepared from figures of the Census Bureau a statement showing remarkable progress made in manufacturing by the Southern States the past five years.

Factories of the South are now producing goods to the value of about $2,000,000,000 annually. Between 1900 and 1905 the capital invested in them increased from $967,701,865 to $1,597,513,217, or

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by $629,811,352, an average of $126,000,000 a year, and the value of their products increased from $1,237,589,667 to $1,787,776,794, or by $550,187,127, an average of $110,000,000 a year. Their capital increased 65 per cent and the value of their products 44.4 per cent, while for the country at large the increases are estimated at a little more than 40 per cent in capital and just about 30 per cent in value of products. Bearing in mind that the 1905 figures, or, correctly, the figures as of the year ended December 31, 1904, deal with factories proper, and that they are compared with figures for factories proper in 1900, less, therefore, than the figures for manufacturing of the Twelfth Census, which included neighborhood industries and hand trades in the statistics, one may make comparison for five years of capital invested and of the value of products by States in the following table compiled by the Manufacturers' Record from figures of the Census Bureau:

State.	Capital invested.		Value of products.	
	1900.	1905.	1900.	1905.
Alabama	$60,110,360	$105,382,859	$72,082,621	$109,169,922
Arkansas	24,275,158	46,306,116	38,481,678	53,864,394
District of Columbia	17,960,498	20,199,783	16,426,408	18,359,159
Florida	25,682,171	32,958,482	34,193,509	50,241,078
Georgia	79,303,316	135,211,551	94,532,368	151,040,455
Kentucky	87,995,822	147,282,478	126,508,660	159,758,968
Louisiana	100,874,729	150,810,608	111,397,919	186,379,592
Maryland	149,555,593	201,877,966	210,343,569	243,375,996
Mississippi	22,712,186	50,250,309	33,718,517	57,451,445
North Carolina	68,283,005	141,000,639	85,274,083	142,520,776
South Carolina	62,750,027	118,422,224	53,385,811	79,376,262
Tennessee	63,140,657	102,439,481	92,749,129	137,960,476
Texas	63,655,016	115,664,871	92,894,433	150,528,389
Virginia	92,299,589	147,989,182	108,644,150	148,856,525
West Virginia	49,103,138	86,716,668	67,006,822	98,898,357
Total	967,701,865	1,597,518,217	1,237,589,667	1,787,776,794

FRUITS AND VEGETABLES.

EXTENT OF CALIFORNIA'S PACKING INDUSTRY.

The annexed table shows the extent of the fruit and vegetable packing industry in California. It was compiled from returns made by the packers and prepared by the California Fruit Grower:

Variety.	Cases.			
	1902.	1903.	1904.	1905.
Apples	6,683	5,023	7,185	22,355
Apricots	236,071	648,716	677,137	624,481
Blackberries	16,661	35,556	17,615	25,710
Cherries:				
Royal Anne	119,227	103,894	67,084	27,513
Black	26,566	30,506	23,946	11,892
White	43,419	63,392	42,466	23,498
Currants	219	95	34	58
Figs	1,388	1,000	1,385	1,550
Gooseberries	536	.....	127	10
Grapes	31,052	52,621	41,178	37,480
Loganberries	194	4,307	10	.....
Nectarines	755	841	1,081	826
Pears	302,962	423,831	572,586	465,166
Peaches:				
Free	353,036	339,375	401,666	792,668
Cling	624,528	569,777	527,622	896,174
Plums	150,447	125,567	143,513	53,197
Quinces	2,402	115	33	20

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Variety.	Cases.			
	1902.	1903.	1904.	1905.
Raspberries	2,975	6,505	3,581	1,632
Strawberries	6,205	15,320	12,018	4,888
Pie fruit:				
2½-pound	77,889	49,582	29,753	35,163
Gallon	203,596	231,496	220,095	212,868
Jams and jellies	45,979	36,485	49,618	46,127
Total fruits	2,252,790	2,733,504	2,839,733	3,283,296
Tomatoes, 2½ and 3 pound	750,810	835,394	507,448	749,885
Tomatoes, gallons	76,242	122,901	58,666	84,686
Peas	57,710	70,487	71,233	56,170
Asparagus	227,126	256,220	224,877	228,439
Beans and other vegetables	39,380	58,572	99,559	73,275
Total fruits and vegetables	3,404,058	4,077,078	3,801,516	4,475,751

MARYLAND PACKERS WILL ABOLISH COLORING MATTER.

The Canned Goods Exchange, of Baltimore, has decided to abolish the use of coloring matter in canned tomatoes, and to disregard the various State pure-food laws and to live up to the requirements of the Federal law only, which governs interstate commerce. President Orem, according to the Baltimore American, in speaking on the subject, said:

"When a packer receives an order from Dakota it is accompanied by an extract from the State food law, and the packer has to pack accordingly, and so on for other States. In many States it is required that the contents of each can be printed on the label, and many houses have refused to fill such orders, because it would mean the revealing of valuable trade secrets. Rather than give away their secrets they refuse to do business in those States making such requirements; but the Maryland packers will live up to the Federal law. It would be impossible to pack and fulfill the conditions established by every State, owing to their wide variance. There is a clause in the new law which prohibits the use of coloring matter to conceal inferiority. Packers heretofore have been in the habit of making use of a vegetable coloring matter, purely harmless, to give a uniform color to tomatoes. In order that there may be no cause for misapprehension, we have decided to do away with the practice. Everything put up in the packing house is subjected to 240° of heat, which pasteurizes the fruit or meat. There is no need of preservatives."

Maryland is said to furnish more canned goods than any five other States in the Union, but oysters are included in that enumeration.

EUROPEAN APPLE CROP.

A report as to the conditions in Europe concerning fruit says: The apple crop in France is reported as medium, with the probability of being not better than an average crop; Germany about the same. The English crop has been reported as an average one, but every succeeding letter brings word of unfavorable conditions, so that there is no prospect of more than an average crop in England. The Irish crop, which is beginning to be a feature, is a failure this year. The English plum and pear crops are much below the average, which will increase the consumption of apples.

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WORLD'S WINE CROP.

UNITED STATES STANDS TWELFTH IN PRODUCING LIST.

Consul A. Gaulin, of Havre, quotes the statement of the Feuille Vinicole de la Gironde that the world's wine crop in 1905 reached nearly 4,000,000,000 gallons, divided among the different countries approximately as follows:

	Gallons.		Gallons.
France (including Algeria and Tunis)	1,710,900,000	Switzerland	22,190,000
Italy	856,520,000	Australasia	7,925,000
Spain	428,000,000	Servia	6,605,000
Austria-Hungary	192,800,000	Oceania	6,605,000
Portugal	108,320,000	Brazil	5,600,000
Germany	79,600,000	Cape Colony	4,490,000
Russia	76,620,000	Azores, Canary, and Madeira islands	3,830,000
Chile	74,200,000	Uruguay	2,780,000
Roumania	52,840,000	Peru	2,400,000
Argentine Republic	34,350,000	Bolivia	610,000
Turkey	34,350,000	Mexico	425,000
United States	34,000,000		
Bulgaria	29,100,000	Total	3,775,060,000

Europe gave over 95 per cent of the total yield and North and South America about 4 per cent. France alone produced 45 per cent and France, Italy, and Spain combined 78 per cent. It may not be uninteresting to note that France is the largest importer, as well as the largest exporter, of wine in the world.

NEW SYSTEM OF MAKING WINE.

Wine germs, which make it possible to duplicate the famous wines of Bordeaux, Burgundy, or the Rhine, are among the latest experiments of scientists. The germs are obtained from the dregs of casks which have contained genuine old wine, and those for each particular brand are placed for safe-keeping in a substance prepared from Japanese isinglass and fruit juice. In the jelly-like mass the germs soon establish a colony. When needed, sufficient germs may be placed in a tube of sterilized fruit juice. After two or three days the juice will be in full fermentation with plentiful effervescence. This process is said to impart to the wine the exact bouquet and characteristics of the wine from which the germs originally came.

IMMIGRATION.

ONE MILLION PERSONS BRING NINETEEN MILLION DOLLARS.

The total number of aliens who passed through the Ellis Island immigrant station in New York during the fiscal year ended June 30 was 935,915, an increase of over 100,000 as compared with 1905. There were 697,000 males and 272,000 females. Including those who reached the island and who were denied admission, over one million aliens arrived at New York.

Out of the total only 38,296 were over 44 years old. Some 100,000 had been in the United States before. Altogether they brought with

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them $19,000,000. For various causes 7,877 were deported, including 195 criminals, 119 insane, and others because they had various contagious diseases. Italy led with 254,238 to her credit, and Russia followed with 163,316; Hungary sent 128,247; Austria, 96,625; Great Britain and Ireland, 71,000; Germany, 30,808, and the Scandinavian countries 33,000. The greater number remained in New York and Pennsylvania. Of those who arrived in the month of June alone, 45,433 gave their destination as New York, and 15,793 went to Pennsylvania. The greatest number which went to any other State in the month of June was 6,531 to Illinois. New Jersey came next with 5,971.

The efforts made to get immigrants to go South are not successful to any great extent. Only 7 went to Arkansas, 63 to Georgia, 24 to Mississippi, 23 to North Carolina, 23 to South Carolina, 86 to Texas, and so on to the other Southern States. West Virginia, to which 819 immigrants went in June, received a larger number than any other southern State, not excluding Maryland, which received only 536 of those who landed at New York.

ELECTRIC DERRICK.

NOVEL WAY OF HANDLING IRON AND STEEL.

A novel application of electricity in the handling of iron and steel is now in operation in Cleveland, Ohio, in the way of a magnet.

This form of magnet consists of a large iron disk supported by chains which may be fastened to the hoop of a derrick or crane block. To the top of the disk is applied an electric plug device connected with insulated wires, which by an ingenious auxiliary pulley arrangement are led to a controller at some convenient point at the base of the derrick or in the operator's cab of the crane. The disk is lowered over the material to be lifted and the current turned on, and in this way enormous loads of material may be gathered together and held by the magnet as long as the current remains connected. Different forms of the disk are made for handling pig iron, heavy melting stock, such as crop ends, butts, steel risers, small castings, tin scrap, whether loose or in bales, shearing scrap, rod scrap, bolts, nuts, punches, rivet spikes, rail ends, machine borings, flats, sheets, and in fact almost any form of iron or steel which affords a surface sufficiently large for the magnet to act upon. When the material has been carried to the place where it is to be deposited the current is turned off and the magnet at once releases the load. Scrap tin has always been an ugly form of material to handle satisfactorily, but by the use of this device it may be disposed of as rapidly and as easily as heavier stock.

MILK STONE.

SECRET PROCESS OF MAKING GALALITH.

In response to a California inquiry Consul H. S. Brunot furnishes from St. Etienne further information concerning the manufacture of casein from skimmed milk and finally converting it into a hard sub-

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stance called galalith or milk stone. The original report appeared in Daily Consular Reports for April 20. Mr. Brunot writes:

I am informed that the casein is manufactured at Surgeres (Charente Inferieure) by three different processes—precipitation by rennet, by acid, and by fermentation. The manufacturer buys the milk from the surrounding cooperative dairies at less than half a cent per quart, or 38 cents per 25 gallons. It is with this casein that galalith is obtained after hardening by formic-aldehyde. But the modus operandi is kept secret and would not be divulged.

The casein industry, as well as that of galalith, is certain to develop considerably on account of the variety of objects which can be made from them and for which there will always be constant demand. It is possible that in the near future galalith will completely supplant celluloid, which has had its day. Every country where the dairy industry is in any way developed will find it to its interest to take up this industry.

PERTINENT INQUIRY.

ADDRESSED TO MANUFACTURERS OF SILK.

The July number of "Dry Goods" asks, "Why do the silk manufacturers of the United States neglect the opportunity to make connections and establish an outlet for their products in South America and the West Indies," and responding to the inquiry adds:

With the enormous overproduction staring them in the face and the market apparently not in the mood to consume the offerings in spite of ruthless slaughter, why does not the manufacturer make an effort to capture these markets so near our doors? We can not understand the logic of our friends of the silk trade who claim that the difference in wages between our standard and that of the European labor market precludes successful competition. It would be interesting to know the difference of cost here and abroad of producing a crêpe de chine or other piece-dyed cloth, the product of some Pennsylvania annex, made on concededly superior and faster running American looms, under the most favorable condition as to wages, etc. We are convinced that, if taken up seriously, a market could and would be found for our surplus stock or for a new production made to meet conditions in those marts. Cotton and silk mixtures offer a field worthy of cultivation.

COMMERCE OF THE UNITED STATES.

The annexed table shows the value of imports to and exports from the United States for each of the ten years named:

Year ending June 30—	Imports.	Exports.
1897	$764,730,412	$1,050,993,556
1898	616,049,654	1,231,482,330
1899	697,148,489	1,227,023,302
1900	849,941,184	1,394,483,082
1901	823,172,165	1,487,764,991
1902	903,320,948	1,381,619,401
1903	1,025,719,237	1,420,141,679
1904	991,087,371	1,460,827,271
1905	1,117,513,071	1,518,561,666
1906	1,226,615,379	1,743,763,612

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PORTUGUESE TOBACCO MONOPOLY AWARDED.

Minister Bryan, of Lisbon, reports that the contract for the Portuguese tobacco monopoly was signed June 2 last, being awarded to the group of capitalists represented by Count Burnay. The contract is much more favorable to the Government than the one which has just expired, and is understood to give general satisfaction. As the bases of the award were practically agreed upon by all political parties, it is expected that the contract will be approved in the next session of the Cortes.

MARKET FOR OIL AND GAS STOVES.

Heating apparatus for houses, such as oil or gas stoves, can be successfully introduced in Corunna, Spain, according to British investigations. The houses there are almost all built without chimneys, and the buildings not being of the first class people suffer considerably during the autumn and winter months from cold. The method hitherto in greatest favor for keeping rooms warm has been the old-fashioned charcoal brazier, but this is falling into disfavor. Many small gas stoves or petroleum lamp stoves are in use, but petroleum is very dear and the small gas stoves are not very satisfactory. A good portable stove consuming not much fuel would probably have considerable success in the long run, although it might require some time to get it into general favor, as the Spaniards are very conservative in their habits. The same remarks would apply also to good kitchen ranges. Those in use at present are either Spanish or French make, and are placed on a strong marble or stone slab raised about 2½ feet from the ground under the open chimney. The ranges themselves are about 1½ feet deep by 3 feet in length, leaving very little space for an oven. These stoves are also proportionately very dear, as the average price for an ordinary sized one is about $30 to $35.

PHOSPHATES IN NANTES.

THRIVING AMERICAN TRADE AND ITS PROSPECTS.

Consul Louis Goldschmidt, of Nantes, reports that phosphates are of some importance in regard to French trade with the United States. He writes:

In 1905 Nantes imported 117,792 tons of phosphates, which represents a little more than a quarter of the total importations into France during that year, viz, 447,834 tons. The United States furnished 32,572 tons out of these 117,792 tons, while Tunis supplied 49,989 tons. Tunisian phosphates find a good market here, because they are generally cheaper, and also because they are not so hard and can be ground more quickly. They are considered suitable for the manufacture of superphosphates. They contain about 60 per cent of phosphate of lime, and in converting into superphosphates produce an article containing 12 to 14 per cent of phosphoric acid, a relatively poor fertilizer, but one which sells best here.

The 32,572 tons imported from the United States are nearly all composed of land pebble phosphates, shipped from Tampa, and containing 68 to 72 per cent of phosphate of lime. Only a few thousand tons of

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high-grade phosphates (78 to 82 per cent) come from Tennessee, the unit price being slightly higher, and these are purchased solely for the manufacture of rich superphosphates, containing 18 to 20 per cent of phosphoric acid. There is only a limited market for such grades in the west of France. From South Carolina come a few thousand tons of Coosaw, which does not contain over 55 per cent of phosphate of lime, and which when finely ground is used by the agriculturists, without being manufactured into superphosphates. Mineral phosphates are also employed in certain parts of Brittany where the land more recently cleared contains acids which aid in the assimilation of phosphates.

The manufacture of superphosphates at Nantes is an industry which has greatly developed within a few years. Nantes received in 1905 55,250 tons of sulphurous pyrites. When the United States shall have developed its production of pyrites (189,200 tons, according to the Journal L'engrais in 1905) beyond its needs, this article may become a very important commercial element between the United States and the port of Nantes.

FERTILIZERS FROM PORTO RICO.

About fifteen years ago there landed in Nantes two or three cargoes of fertilizers coming from Mona Island, on the east coast of Porto Rico. These were marketed under the name of "Guano de Mona," giving general satisfaction. They contained 55 to 57 per cent of phosphate and appreciable traces of nitrogen. The phosphate was assimilable and this fertilizer could be employed without being ground. There were also found on Mona Island fertilizers of much richer composition, containing 75 to 78 per cent of phosphate of lime.

The exploitation of these deposits was stopped after a relatively short period. My informant believes that the concessionaires did not manage the deposit properly, the concession passing into various hands, and was finally either neglected or abandoned. Another reason given is that very heavy taxes had been imposed upon the working and shipping of these fertilizers. As freights are now much lower than in those days, and although guanos, or guano-like fertilizers, have not advanced in the same proportion as phosphates, it would be interesting to find out whether these deposits, if existent, might not be again worked to advantage and furnish an income to the owners.

I believe that a much larger sale for American phosphates in Nantes can be obtained, if efforts are made. [The consul furnishes lists of manufacturers and importers of superphosphates and phosphates and purchasers of acids. The addresses can be secured from the Bureau of Manufactures.]

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CONSULAR REPORTS.

The publications made up chiefly of reports from United States consular officers in foreign countries include the following:

COMMERCIAL RELATIONS, being the annual reports of consular officers on the commerce, industries, navigation, etc., of their districts.
REVIEW OF WORLD'S COMMERCE, being a summary of the annual reports contained in COMMERCIAL RELATIONS.
DAILY CONSULAR AND TRADE REPORTS, issued daily, except Sundays and legal holidays, for the convenience of the press, commercial and industrial organizations, manufacturers, etc.
MONTHLY CONSULAR AND TRADE REPORTS, containing miscellaneous reports from diplomatic and consular officers compiled from the daily.
SPECIAL CONSULAR REPORTS, containing series of reports from consular officers on particular subjects, made in pursuance to instructions from the Department.

The above consular reports were until July, 1903, issued by the Bureau of Foreign Commerce of the State Department; from that date until June, 1905, they were issued by the Bureau of Statistics of the Department of Commerce and Labor, with which the Bureau of Foreign Commerce of the State Department was consolidated July 1, 1903; since July 1, 1905, they have been issued by the Bureau of Manufactures, Department of Commerce and Labor. For details of these publications, the subjects of which the special reports treat, and the reports remaining for distribution, address "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

The publication of the reports on special subjects, in separate form, was begun in 1890. Those of the following titles are now available for distribution:

Vol. 2 (1890 and 1891).—Olive Culture in the Alpes Maritimes.
Vol. 15 (1898).—Part I. Soap Trade in Foreign Countries; Screws, Nuts, and Bolts in Foreign Countries; Argols in Europe; Rabbits and Rabbit Furs in Europe; Cultivation of Ramie in Foreign Countries.
Vol. 20 (1900).—Part I. Book Cloth in Foreign Countries; Market for Ready-Made Clothing in Latin America; Foreign Imports of American Tobacco; Cigar and Cigarette Industry in Latin America. Part II. School Gardens in Europe.
Vol. 23 (1901).—Part I. Gas and Oil Engines in Foreign Countries. Part II. Silver and Plated Ware in Foreign Countries.
Vol. 24 (1902).—Creameries in Foreign Countries.
Vol. 25 (1902).—Stored Goods as Collateral for Loans.
Vol. 26 (1903).—Briquettes as Fuel in Foreign Countries.
Vol. 27 (1903).—Markets for Agricultural Implements and Vehicles in Foreign Countries.
Vol. 29 (1904).—Macaroni Wheat in Foreign Markets.
Vol. 30 (1904).—Emigration to the United States.
Vol. 32 (1904).—Foreign Markets for American Fruits.
Vol. 33 (1905).—Industrial Education and Industrial Conditions in Germany.
Vol. 36 (1905).—Foreign Markets for American Cotton Manufacturers.
Vol. 37 (1905).—Machine-Made Lace Industry of Europe.
Vol. 38 (1905).—Insurance in Foreign Countries.
Reports of Special Agents:
Trade Conditions in Brazil.
Trade Conditions in China.
Trade Conditions in Cuba.
Trade Conditions in Japan and Korea.
Trade Conditions in Mexico.
Trade with China. Illustrated.

Of the MONTHLY CONSULAR REPORTS, many numbers are exhausted or so reduced that the Department is unable to accede to requests for copies. Of the publications of the Bureau available for distribution, copies are mailed to applicants without charge. In view of the scarcity of certain numbers, the Department will be grateful for the return of any copies of the monthly or special reports which recipients do not care to retain. Upon notification of willingness to return such copies, franking labels to be used in lieu of postage in the United States, the Philippine Islands, Hawaii and Porto Rico will be forwarded.

Persons receiving CONSULAR REPORTS regularly, who change their addresses, should give the old as well as the new address in notifying the Bureau of the fact.

In order to prevent confusion with other Department bureaus, all communications relating to CONSULAR REPORTS should be carefully addressed, "Chief, Bureau of Manufactures, Department of Commerce and Labor, Washington, D. C."

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VALUES OF FOREIGN COINS AND CURRENCIES.

[As given by the Director of U. S. Mint and published by Secretary of the Treasury July 1, 1906.]

COUNTRIES WITH FIXED CURRENCIES.

Countries.	Monetary unit.	Value in U.S. gold.	Coins.
Argentina	Peso	$0.96,5	Gold—argentine ($4.82,4) and ½ argentine; silver—peso and divisions.
Austria-Hungary	Crown	.20,3	Gold—20 crowns ($4.05,2) and 10 crowns; silver—1 and 5 crowns.
Belgium	Franc	.19,3	Gold—10 and 20 francs; silver—5 francs.
Brazil	Milreis	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British N. A. (except Newfoundland)	Dollar	1.00	
British Honduras	....do	1.00	
Chile	Peso	.36,5	Gold—escudo ($1.825), doubloon ($3.65), and condor ($7.30); silver—peso and divisions.
Colombia	Dollar	1.00	Gold—condor ($9.647) and double condor; silver—peso.
Costa Rica	Colon	.46,5	Gold—2, 5, 10, and 20 colons ($9.30,7); silver—5, 10, 25, and 50 centimos.
Denmark	Crown	.26,8	Gold—10 and 20 crowns.
Ecuador	Sucre	.48,7	Gold—10 sucres ($4.8665); silver—sucre and divisions.
Egypt	Pound (100 piasters).	4.94,3	Gold—5, 10, 20, and 50, piasters; silver—1, 2, 5, 10, and 20 piasters.
Finland	Mark	.19,3	Gold—10 and 20 marks ($1.93 and $3.85,9).
France	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Mark	.23,8	Gold—5, 10, and 20 marks.
Great Britain	Pound sterling	4.86,6½	Gold—sovereign (£) and half sovereign.
Greece	Drachma	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti	Gourde	.96,5	1, 2, 5, and 10 gourdes; silver—gourdes and divisions.
India	Pound sterling[a].	4.86,6½	Gold—sovereign (£); silver—rupee and divisions.
Italy	Lira	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan	Yen	.49,8	Gold—5, 10, and 20 yen; silver—10, 20, and 50 sen.
Liberia	Dollar	1.00	
Mexico	Peso[b]	.49,8	Gold—5 and 10 pesos; silver—dollar[c] or peso and divisions.
Netherlands	Florin	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Dollar	1.01,4	Gold—$2 ($2.02,7).
Norway	Crown	.26,8	Gold—10 and 20 crowns.
Panama	Balboa	1.00	Gold—1, 2½, 5, 10, and 20 balboas; silver—peso and divisions.
Peru	Libra	4.86,6½	Gold—½ and 1 libra; silver—sol and divisions.
Philippine Islands	Peso	.50	Silver—peso, 50, 20, and 10 centavos.
Portugal	Milreis	1.08	Gold—1, 2, 5, and 10 milreis.
Russia	Ruble	.51,5	Gold—5, 7½, 10, and 15 rubles; silver—5, 10, 15, 20, 25, 50, and 100 copeks.
Spain	Peseta	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden	Crown	.26,8	Gold—10 and 20 crowns.
Switzerland	Franc	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Piaster	.04,4	Gold—25, 50, 100, 250, and 500 piasters.
Uruguay	Peso	1.03,4	Gold—peso; silver—peso and divisions.
Venezuela	Bolivar	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

COUNTRIES WITH FLUCTUATING CURRENCIES.[d]

Country and monetary unit.	Oct. 1, 1905.	Jan. 1, 1906.	Apr. 1, 1906.	July 1, 1906.	Country and monetary unit.	Oct. 1, 1905.	Jan. 1, 1906.	Apr. 1, 1906.	July 1, 1906.
Bolivia:	*Cts.*	*Cts.*	*Cts.*	*Cts.*	China—Continued.	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Silver boliviano	44.1	46.5	47.8	48.0	Hongkong dollar	.....	50.2	51.5	51.8
Central America:					Kiaochou	.....	75.3	77.3	77.7
Silver peso	44.1	46.5	46.5	48.0	Nankin tael	71.6	75.5	77.5	77.9
China:					Ningpo tael	.....	73.3	75.3	73.9
Amoy tael	72.4	76.3	78.3	78.8	Newchwang tael	67.9	71.5	73.4	75.7
Canton tael	72.2	76.0	78.1	78.5	Peking tael	70.6	74.3	76.3	76.8
Chefoo tael	69.2	72.9	74.9	75.3	Shanghai tael	66.1	69.6	71.5	71.9
Chinkiang tael	70.7	74.5	76.5	76.9	Swatow tael	66.9	70.4	72.3	72.7
Fuchau tael	66.9	70.5	72.4	72.8	Takau tael	72.8	76.7	78.8	79.2
Haikwan (customs) tael	73.6	77.6	79.7	80.1	Tientsin tael	70.1	73.9	75.9	76.3
Hankow tael	67.7	71.3	73.3	73.7	Persia:				
Hongkong tael	(*e*)	(*e*)	(*e*)	(*e*)	Silver kran	8.1	8.6	8.8	8.8

[a] The rupee, $0.3244½, 15 to the sovereign, constitutes the money of account.
[b] Seventy-five centigrams fine gold.
[c] Value in Mexico, $0.498.
[d] Coins of silver-standard countries are valued by pure silver content at average market price of silver for the three months preceding date of circular issued by U. S. Treasury Dept.
[e] The "British dollar" has the same legal value as the Mexican dollar in Hongkong and Labuan.

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DEPARTMENT OF COMMERCE AND LABOR
BUREAU OF MANUFACTURES

MONTHLY CONSULAR AND TRADE REPORTS

AUGUST, 1906

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MONTHLY CONSULAR *and* TRADE REPORTS

Washington, D. C. AUGUST, 1906 No. 311

SOUTH AMERICA.

BRAZIL.

VALORIZATION OF COFFEE ACT APPROVED.

Mr. Lloyd C. Griscom, American ambassador to Brazil, advised the Department of State that a bill for the valorization of coffee was passed by the Congress of Brazil and received the approval of the President on August 6. The object of this so-called valorization law is to arbitrarily fix the price of coffee, and with that object authorizes the creation of a loan of $75,000,000 gold which is to be secured and redeemed ultimately from a tax of about 60 cents on each bag of coffee sold. To "valorize" coffee, that is to maintain a minimum price, a commission is to be created through whom coffee will be purchased from the planters from about $10.50 to $12.50 per sack of 132 pounds. The text of the law approved by the President has not been received at the Department of State, but is not likely to materially differ from the outline here given.

COST OF PRODUCING COFFEE.

BRAZILIAN EXCHANGE A VITAL POINT IN THE INDUSTRY.

Consul-General George E. Anderson sends from Rio de Janeiro an interesting account of the cost of producing coffee, in which he says:

The cost of producing coffee is being discussed in Brazilian economic circles at the present time in connection with the scheme to give the berry a fictitious value in the markets of the world by action of the Brazilian Government, and the discussion is developing the fact that there is little agreement as to what the cost of production really is.

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The coffee planters are ready to show upon demand that the price now being received for coffee in foreign markets will not, at present exchange at least, pay for the cost of production and allow a reasonable profit to the producer. On the other hand, there are a number of influential foreigners engaged in the coffee business who declare that there is a very fair profit in the production and sale of coffee at present prices, or even at lower prices if modern methods of production and the handling of the crop are followed. There is no doubt but that more careful management and the elimination of several high interest charges which now go to make up the cost of producing coffee will improve the condition of the coffee planters, and it is probable, also, that what they regard as a "reasonable profit" will be regarded otherwise by the business world generally.

In a recent statement published as the basis for an argument in favor of the scheme to "value" coffee by the Brazilian Government, Mr. Joaquim Franco de Lacorda, of Sao Paulo, gives figures as to the cost of production which are of value as representing the planter side of the proposition. In his statement Mr. Lacorda says that the cost of production, in gold, delivered in Havre, France, at 12 pence exchange, is 46 francs per bag of 132 pounds and with exchange at 16 pence the cost would be 60 francs. (Franc=19.3 cents.)

This estimate of the cost of the coffee delivered in Havre, substantially what it would be in New York, does not take into consideration the value of the plantation, its depreciation from year to year, interest upon the original investment, and similar accounts. It is in such items that the greatest difference of opinion as to actual cost of production exists. In discussing the matter of land values and the bearing they have upon the matter of cost of production Mr. Lacorda concludes by saying:

"These figures show the cost of production and expenses per bag until sold, to which must be added an amount as compensation for the capital employed in producing the coffee. This will increase the cost to the consumer, per bag of 60 kilos, to 62 francs at 12 pence exchange, or 81.80 francs at 16 pence exchange."

COST IN NEW YORK—EFFECT OF A FLUCTUATING CURRENCY.

Assuming that the cost of ocean freight to New York, including insurance, commissions, etc., are substantially the same as in the case of Havre, this estimate places the cost of coffee ready for the consumer in New York at $12.40 at 12 pence exchange and at $16.36 at 16 pence exchange. With coffee selling in New York at from 6½ cents up, the prospect for the Brazilian planter looks rather discouraging. Yet this estimate is generally taken here as a moderate one.

To get at the real situation in the matter of producing coffee, however, the situation as regards exchange must be thoroughly understood. The coffee producer pays all expenses, except ocean freight, ocean insurance, and selling commission, in the money of Brazil—the depreciated paper currency whose value varies from day to day, but which varies little, if at all, in its purchasing power in Brazilian markets. The cost of his labor and the value of his garden, as well as all similar charges, remain the same. The matter of exchange affects him vitally in that it represents what he secures for his crop. Fluctuations in exchange to him are in fact fluctuations in the value of his crop.

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When coffee is sold at, say, 7½ cents in New York, or $9.90 per bag of 60 kilos (132 pounds), the Brazilian planter receives remuneration for his crop on the basis of about 40 milreis (milreis=54 cents) for a bag while exchange is at 12 pence; when it goes up to 16 pence and the price in New York remains at the same point, he receives only about 3 milreis to the dollar, or substantially 30 milreis per bag of coffee. Practically all of the elements of the actual cost of the coffee berry are based upon local monetary conditions.

VALUE OF PLANTATIONS.

The fact that the further planting of coffee gardens has been stopped by law demonstrates that coffee plantations can be created more cheaply than they are valued by their owners. The valuations of coffee plantations in Brazil at present are unquestionably too high, and calculations of interest charges against them also are too high. The charge for labor generally also is too high. The charge generally made for labor represents an all-the-year-around charge, whereas the employment of labor varies. Where there is diversification of crops and labor is employed in some seasons on crops other than coffee, the planters have little complaint to make of the cost of labor on their coffee plantations, for something nearer full use of the labor paid for is had. Under the present system also much of the labor is done on a credit basis and the cost is greater than it would be otherwise. Much of the cost of labor now charged against coffee crops is in reality labor which goes to make a part of the coffee planter's way of living, and is not, strictly speaking, a part of the cost of producing coffee at all. The cost of superintendence is often excessive for the same reason and in the same manner.

There is no question that the present charge for transporting the coffee crop in some portions of Brazil is excessive and that some relief from this excess must soon be had. In the estimate of cost given heretofore it will be noted that the charge for transportation from the garden to Santos is 15 per cent of the total estimated cost of the crop, leaving the matter of interest on the capital invested out of consideration. It is doubtful if a single staple crop in the world is subjected to such transportation charges at such a stage of its production, especially in view of the fact that coffee is freight which is easily handled.

EXCHANGE THE VITAL QUESTION.

So long as coffee is sold on a gold basis and is produced upon the basis of Brazil's paper money, the matter of exchange is the vital element in the situation. Low exchange—that is, a large number of milreis to the gold dollar—means booming times for the coffee planter. High exchange—few milreis for the dollar—means pinching poverty. When once exchange is fixed there will be, as there has already been to a greater or less extent in the past three or four years, an eliminating process wherein the weaker planters will be dragged under by losses, provided it may be assumed that some of them are losing money, while the financially strong will continue in the business, until by this process of elimination there will be an adjustment of production to consumption upon a basis which will bring not the great profits of a few years ago, but profits reasonably in conformity with the profits of other

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lines of business. The fixing of this exchange, however, is the real gist of the present political and economic situation of Brazil. It is reasonably certain that the difference between profit and loss for the coffee producers at the present time is merely the difference between high and low exchange. Where the variations are from 25 to 50 per cent in short periods of time, however, this statement does not necessarily mean much, but it does demonstrate the ever-increasing necessity for action as to exchange.

CRUDE METHODS IN PREPARATION.

In addition to the points noted, the cost of producing coffee will be reduced when proper machinery for manipulating the berry and bean has been invented. As it now is there is practically no modern and effective machinery employed, although apparently there is no reason why this should be the case. The large element in the cost of the berry which is represented by the expenses of handling it in port also is to be considered. The coffee now coming in is transferred from train to shed, from the shed in carts to the commissario, and later taken out by carts to the docks at Santos or to the lighters in Rio Janeiro, where it must again be handled. The mixing for export is done by hand, and in short the handling of the berry from the tree to the exporting vessel is crude, costly, and unsatisfactory.

These points wherein production for export may be cheapened do not indicate of themselves that current estimates of the cost of production are too high. There is no doubt they are too high, but how much too high is a matter of considerable question, in which varying conditions of production, an ever-shifting medium of exchange, crude methods of production, and a speculative clinging to former ideas of the business in spite of changed conditions are all contributory. Whatever may be the present state of things, there seems to be no question that there will be fair profits at prices now received when production is established upon a more modern, economical, and safer basis by the introduction of labor-saving machinery, transportation at reasonable rates, and more reasonable profits for middlemen. It seems probable that the present crisis in the coffee business will force some of these changes, notably that relating to the monetary circulation of the country, freights, and the introduction of machinery.

AMERICAN OPPORTUNITIES.

HEAVY PURCHASES OF PRESERVED AND DRIED ARTICLES.

Consul-General Anderson sees no reason why American dealers in preserved and dried fruits should not have a good share of the trade of Brazil in such commodities, although at the present time the share of the United States is practically nothing. Mr. Anderson details this trade as follows:

The imports of fruits and vegetables in this form are not great, but they are considerable, and it is probable that they will soon greatly increase, for, if the exchange between Brazilian money and the money of gold-using countries continues long at the present rate it will be cheaper for consumers of fruits and vegetables to import them and

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pay high import duties, instead of buying them generally in the Brazilian markets at present prices. The volume of trade at present is considerably over half a million dollars a year. The imports of preserved fruits and vegetables in 1903 were 2,116,000 pounds, valued at $260,988, and in 1904, 2,104,000 pounds, valued at $271,712. The imports of dried fruits and vegetables in 1903 were 1,978,000 pounds, valued at $216,267, and in 1904, 2,238,000 pounds, valued at $253,614. The increase between these two years was considerable, and it is estimated that the imports of the two classes of goods last year ran to considerably over $600,000.

The present high value of the Brazilian currency as compared with gold will stimulate the importation of such classes of goods very much, and for this reason the present offers an exceptional opportunity for the introduction of such commodities. At present the United States has practically no part of this trade whatever. Last year, of the preserved fruit, Italy and Portugal each furnished about 30 per cent, France about 15 per cent, and other nations the rest, with the United States not in the list. Of the dried fruit, Spain furnished 35 per cent, Portugal 22 per cent, France 18 per cent, Italy 12 per cent, with practically nothing from the United States. The goods furnished by these countries vary greatly in quality, some of them being exceptionally meritorious and others far inferior to what the United States can furnish for less money. In the way of raisins, for instance, there is a grade of goods now coming from Europe which is far inferior to some of the more common grades of California raisins which are put on the market in the United States at prices far below those brought here. As a rule the dried peaches, prunes, and similar goods shipped to Brazil are of good grade, but prices are high, and it is probable that the medium grade of goods sold in the United States could be placed here successfully.

HOW TO PLACE AMERICAN PRODUCTS.

To properly introduce American goods of this class, however, there is particular need of a direct representative of American fruit interests. The connection of Brazil with the countries of southern Europe by ties of blood and tradition is too close for the people here to break away from time-honored food sources without some effort on the part of people who wish to sell them goods. As between two lines of goods of equal merit and the same price the Brazilians will generally prefer European goods, not that they have any reason for so doing but simply because they have been accustomed to buy European goods. This simple feeling of favor for European goods as opposed to those from any other country though of equal merit in my opinion has more of an influence upon the foreign trade of Brazil than any other single factor. Energetic work is necessary to overcome this feeling or prejudice and naturally the pioneers in the work will be the first to get business which ought to go to the United States.

For such American fruit men as care to attempt to secure trade by correspondence, a list of dealers in Rio de Janeiro is given by Mr. Anderson, and can be secured from the Bureau of Manufactures. Letters should be written in Portuguese, or at least in French. Nothing in the way of jobbing in preserved or dried fruits seems to have been done so far, but it may be advisable to correspond with certain commission houses in Brazil, the addresses of which are also obtainable

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from the Bureau of Manufactures. The consul-general adds that on all these goods the matter of packing for export through or to the Tropics is to be considered. Packing such goods in comparatively small packages also is a matter worth attention.

AMERICAN FLOUR.

POSSIBILITIES FOR REVIVING THIS IMPORTANT TRADE.

American millers are showing considerable interest in the matter of reviving the one-time shipments of flour to Brazil, for which the present situation is fairly promising.

In 1904, the last year in which Brazilian customs returns for imports are as yet available, the United States shipped to Brazil 30,241 tons of flour, valued at $2,248,399, as compared with a total of 38,715 tons, valued at $2,358,181, in 1903. [American official statistics of declared exports show that flour shipments to Brazil for the four years, 1896 to 1899, inclusive, averaged nearly $3,500,000. In 1903 the value was $2,148,342, in 1904 $1,785,706, and in 1905 $1,225,565.] The decrease thus shown has been maintained in greater ratio until at the present time there is little flour from the United States coming to Rio de Janeiro, and much of the time practically none at all coming to any portion of Brazil south of Pernambuco, while the amount shipped to northern Brazil is very small. In 1903 Argentina shipped to Brazil about twice as much flour as the United States, and in 1904 the amount increased to about three times the American shipments. For a considerable time, indeed, shipments of American flour practically ceased. They began again in September, 1905, at which time quotations on American flours were made in Brazil markets for the first time in nearly a year, and there is some flour now moving.

In the meanwhile there has been a considerable development of the flour-milling business in Brazil. Grain is imported from the countries to the south and west of Brazil and is made into flour here, but the bulk of the cheaper grades of flour come from the Argentine Republic and the whole situation seems to be altogether a matter of price and quality. In his annual report upon the commerce of Brazil submitted to Congress, which has just convened, the Brazilian Minister of Commerce and Industry reviews the flour trade of the year in Rio de Janeiro as follows:

> The total importations for the past year were 320,074 barrels as compared with 264,810 in 1904. There was received in 1905, 55,234 barrels more than in 1904. From the Rio de Pata the receipts were 306,525 as compared with 254,966 in 1904, an increase of 51,559 barrels. From the United States and Europe came 13,549 barrels against 9,874 the year before, an increase of 3,675 barrels. The consumption was 317,074 barrels as compared with 269,840 barrels in 1904. The general movement for the year was: On hand January 1, 29,000; entered, 320,074; sold, 317,074; leaving on hand December 31, 1905, 32,000 barrels The entries of flour for the past four years have been: 1901, 380,021 barrels; 1902, 349,962 barrels; 1903, 257,070 barrels; and in 1904, 264,840 barrels.

AMERICAN FLOUR MUCH SUPERIOR.

It thus appears that the customs valuation of this flour has varied from 21½ to 24 milreis for the American product, from 16½ to 24½ milreis for Rio de Plata flour, and from 17 to 24½ milreis for Brazilian

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flour. The average exchange for last year was about 4 milreis to the American dollar, making the values of barrels of flour from $5.37 to $6, from $4.12 to $6, and from $4.25 to $6.12 for the three varieties in port here. It is evident from the general course of values that there were times last year when American flour could have been imported at Rio de Janeiro with profit, although none came. Generally speaking the importation of American flour in Brazil is a matter of quality and value. The flour produced in Brazil and Argentina as a rule is much inferior to the American flour received, but can be had much more cheaply. There are some things, however, for which the South American flour is not suitable, and there is more or less flour from the United States needed all the time. When the price of flour in the United States falls low enough to enable shipments to be made to Brazil with profit, there is a constant demand for the product here.

So far in 1906 two consignments of flour from the United States have been received in Rio de Janeiro, aggregating 7,670 barrels. The imports of last year in Rio de Janeiro, aggregating 320,074 barrels, were entered principally by 26 firms, names of which can be secured from Bureau of Manufactures. There have been slight tariff concessions to the United States in the way of flour but they seem to have comparatively little if any effect upon the sale of the American product in this market. When the flour market in the United States becomes a little dull and prices drop American manufacturers reach out for the Brazilian market.

They get some business, but they do not get what they ought to have and what they would unquestionably be able to secure if they paid attention to this trade all the time, regularly, systematically, persistently, and consistently. It is the same old story of American indifference to foreign markets until the necessity for foreign markets commences to stare American manufacturers in the face. In the case of flour there is no prejudice, no question of quality, no question of transportation at low rates, and little question of credits and representation. The chief matter in this trade from an American standpoint is to get good flour here as cheaply as possible and at a uniform price over as long periods of time as possible.

MARKET FOR WINES.

SOUTH AMERICAN MARKET FOR AMERICAN VINTAGE.

Consul-General Anderson also treats on the possibilities of building up a trade in American wines in Brazil, a subject which is receiving the attention of American wine manufacturers, apparently with more than an ordinary chance of their being able to accomplish something. Mr. Anderson writes:

The use of wine by the mass of people in Brazil is quite general, as is ordinarily the case with people more or less closely connected with southern Europe, in spite of the fact that comparatively little wine is produced in this country. At present some wine is being made in the State of Rio Grande, and some grades of the Brazilian product are fair wines, as ordinary wines go. But the bulk of the wines consumed are imported, mostly from Portugal, and apparently bring prices which ought to make some American wines very popular. The great bulk of

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the importations of wine into Brazil consists of a red wine corresponding to the "vin ordinaire" of France and southern Europe, and it is used by the people as commonly as the European wines are consumed. The total importations of wine in Brazil in 1903 were about 7,000,000 gallons, in 1904 about 7,500,000 gallons, and in 1905 reached well toward 8,000,000 gallons. In his report to the Brazilian Congress, just submitted, the Minister of Industry and Commerce discussed the wine trade of Rio Janeiro at some length, and among other things said:

Generally speaking, the importation of wines during 1905 greatly exceeded that of the preceding year. As has been the custom heretofore, we show separately the business done in each class of wines for last year. *French.*—There was a diminution in the imports of 2,173 half-casks, and an increase of 2,228 pipes and 203 cases. The increased receipts were made up of 5,463 pipes and 4,675 cases in 1905 as compared with 3,038 pipes and 4,472 cases in 1904. The values of these wines vary greatly according to their qualities and they are sold only on private terms. *Italian.*—The importation of Italian wines in 1905 was much less than in 1904. The entries were 1,409 pipes, 5,593 half-casks, and 2,475 cases. *Portuguese.*—The year shows a somewhat important increase both in barrels (pipes) and casks as well as in bottles. The total imports were 41,996 pipes and 233,052 cases, showing an increase of 12,347 pipes and 37,362 cases over 1904. *Spanish.*—The receipt of these wines shows a decreased import from former years, the receipts being 1,415 pipes and 793 cases against 3,412 pipes and 1,268 cases in 1904.

There was also imported 1,190 cases of champagne last year as compared with 1,149 the year before, and a total of 28,408 cases of vermuth, mostly French and Italian. Taking the Portuguese wines as a basis for prices, it appears that the customs valuation of the wines imported last year from Oporto and Lisbon runs from $80 to $130 per pipe. But it is really impossible to give an accurate idea of the prices of wines from these returns. The quality of the wines, the element of exchange which so fluctuates that the prices often are fixed higher than ordinarily they would be to cover possible losses from exchange, the difference in prices between cask and bottled goods, and the uncertainties of customs tariff all combine to make such figures unreliable.

The trade here is large enough and the possibilities of American entrance into it great enough, in my opinion, to merit careful investigation by a wine expert. From general observation I should say that there are vast quantities of wine imported and sold here which are inferior, according to every standard, to wines which can be made and sold by American wine merchants for the same prices, or even more cheaply. In breaking into a trade so firmly established, not only by years of satisfactory continuance, but also by ties of blood and tradition, it ought to be evident to American manufacturers that long-distance efforts and favorable prices will hardly suffice. There ought to be a man on the ground. I feel certain that putting one here will be profitable. From California, especially, with water transportation, there ought to be a profitable trade.

BARBED WIRE TRADE.

MAY BE PUT ON FREE LIST—CHANCE FOR AMERICAN PRODUCT.

Mr. Anderson reports a well-supported movement toward placing barbed wire on the free list in the Brazilian tariff schedule, and that there is some hope of action by the present Brazilian Congress in that respect. Mr. Anderson continues:

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The amount of barbed and other wire imported from the United States has not been large, but the trade was increasing until the present high duty was imposed, and the possibilities of this trade in a country like Brazil, with great estates but slightly improved, are immense if favorable conditions can be had. Duties range from 100 to 500 reis per kilo (2.2 pounds), plus 50 per cent ad valorem, and in addition 2 per cent port duties. In other words, on barbed wire costing in the United States about $2.25 per 100 pounds a specific duty of 150 reis per kilo, or about 2 cents per pound gold, is imposed, and to this must be added 50 per cent ad valorem (say, $1.15 per 100 pounds) and 2 per cent port duty (about 5 cents per 100 pounds). The cost of 100 pounds of barbed wire delivered at Rio de Janeiro, exclusive of tr nsportation, therefore, would be about $5.40 gold. Naturally at this rate the demand for the wire has fallen off to such a point that the trade may almost be said to have ceased. In 1903 there was imported from the United States 3,969 tons of wire, nearly all of which was barbed wire, and in 1904 the amount was increased to 5,348 tons. The importations for 1905 were much smaller. Three-point barbs are most popular.

The United States has far less of the wire trade of the country than it should have. Wire of all kinds (iron or steel) was imported in the last year for which figures are now to be had (1904) to the amount of 17,073 metric tons, valued at $1,278,147, as compared with 15,690 tons, valued at $1,154,990, the year previous. Of these importations Germany sent about two-thirds, the United States one-fourth, and other nations the balance, Germany losing slightly and the United States gaining proportionately in the last two years. About one-third of the importations come to Rio de Janeiro, one-fourth to Santos, and the rest is well scattered among other Brazilian ports.

TRADE NOTES.

GENERAL PROGRESS OF COMMERCE AND INDUSTRIAL LIFE.

Two steamships of 10,000 tons gross registered tonnage, the *Amazon* and the *Araguaya*, have been placed on the run between Liverpool and South American ports. There are no such steamships on the run between the United States and these ports. The Royal Mail Steam Packet Company, the concern owning and operating the line to which these ships belong, paid 5 per cent dividends last year after making large allowances for surplus, depreciation, insurance, and other funds.

The Brazilian Government is to install a smokeless powder manufactory in Piguete, upon which it is authorized to expend substantially $300,000 gold. The plant is to be purchased in the United States. Gen. Modestino Martins, head of military engineers, is president of the commission, which is proceeding to the United States to make purchases in line with plans and estimates already obtained.

Experimental borings in the southern portion of the country for the location of coal seams and other mineral wealth have been far more successful than was at first anticipated. Dr. Francisco Paulo E. Oliveira, in charge of the commission, reported to the minister of public works that the borings at Tuberão showed at 64.80 meters (meter=39.37 inches) depth a coal strata 4.065 meters thick—3.260 meters of almost

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pure coal, 0.180 meter of coal and schist combined, and 0.655 meter of schist. The demand for foreign coal will be increased rather than diminished by the discovery and development, for it ought to stimulate the use of steam power for many purposes not now employed.

ARGENTINA.

FOREIGN TRADE.

IMPORTS AND EXPORTS THE PAST TWO YEARS.

Consul George C. Cole sends from Buenos Aires the following statistics of the imports and exports of the Argentine Republic for the quarter ending March 31, 1906, and showing increase or decrease compared with 1905:

IMPORTS.

Country.	Value.	Increase or decrease.	Country.	Value.	Increase or decrease.
		Per cent.			*Per cent.*
Africa	$1,991	.....	United States	$7,491,900	+24.9
Germany	7,762,699	+4.6	France	5,584,059	+12.2
Belgium	2,269,499	.....	Italy	4,338,483	− 9.7
Brazil	950,572	.....	Holland	510,745	.....
Bolivia	21,812	.....	Paraguay	188,160	.....
Cuba	87,343	.....	England	16,686,344	+ 4.7
Chile	252,582	.....	Uruguay	390,456	.....
Spain	1,344,519	.....	Various	3,489,222	.....

EXPORTS.

Africa	$1,566,800	.....	France	$12,603,856	+ 3.8
Germany	13,556,813	+14.1	Italy	2,138,263	+33.0
Belgium	7,461,926	.....	Holland	689,736	.....
Brazil	2,475,008	.....	Paraguay	26,555	.....
Bolivia	69,040	.....	England	11,323,613	− 6.2
Chile	381,538	.....	Uruguay	1,111,411	.....
Spain	817,502	.....	Various	1,083,751	.....
United States	4,126,492	+ 1.5	Orders	26,665,664	+ 2.1

The total imports for the quarter ending March 31, 1906, amounted to $51,379,376 and the total exports to $86,143,099.

ECUADOR.

IMMIGRANTS FOR REPUBLIC.

FIVE THOUSAND WHITE FAMILIES CONTRACTED FOR.

Mr. Joseph W. J. Lee, minister to Ecuador, reports that on June 11, 1906, the Government of Ecuador signed a contract with Oscar Alexander & Co., who have an agency in Guayaquil, for the purpose of importing immigrants into the lower and eastern portion of the Republic. The Minister writes:

The company is to be called "The Ecuadorian Immigration Company." It binds itself to import 5,000 families. It is specified in the

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contract that the immigrants shall be white and preferably of the German or Dutch races. The company is to receive 500,000 hectares of land, but no land which interferes with the construction of the Curaray Railway. All necessities of life shall be entered free of duty and also all animals, implements, seeds, etc., which the colonists bring with them. The company may sell land in the proportion of 50 hectares to each family. The price shall be adjusted according to the company's expenditures in the delivery of the immigrants. For ten years the Government will exact no taxes from the colonists.

Within three years from the date when the contract is confirmed by the Congress the company must have initiated the immigration. If within ten years from such date the 5,000 families are not installed in Ecuador the contract lapses. However, those immigrants who may have arrived anterior to this period will be allowed to hold their proportion of land, but all the unused balance of the 500,000 hectares shall revert to the Government. The land in question lies low on the eastern slope of the Andes, and transportation therefrom can be accomplished by means of various tributaries which eventually flow into the Amazon. The territory is said to be very rich in rubber and dyewoods, but not particularly healthful for Europeans.

COLOMBIA.

WHEAT GROWING PROTECTION SHRINKS AMERICAN IMPORTS.

Consul P. P. Demers, of Barranquilla, reports that the doubling of the duty on flour in February to 16 cents per kilogram (2.2 pounds) for the interior of Colombia has caused a marked decline in the import of the American article.

For the calendar years 1903 and 1904 the imports of American flour at Barranquilla averaged 53,000 barrels, and in 1905 anticipation of a higher duty helped push the imports up to 90,160 barrels. For the first six months of 1906 the imports amounted to only 2,732 barrels. The object of the increased tariff rate was to force the cultivation of wheat on the mountain plains of Colombia, which are said to be well adapted to its growth. This may supply the Bogota district, but with lack of transportation the coast regions must depend entirely on foreign flour or flour made out of foreign wheat. The duty on imported wheat is 1.7 cents per kilogram, except if it comes to Barranquilla direct through the mouth of the Magdalena River, in which case it is entered under the free list. Small craft drawing 10 feet of water can in summer enter the river.

The higher duties on foreign flour will cause a large decrease in the consumption of bread among the poorer element. Flour was practically unknown fifteen years ago to the masses, who used preparations of yam, okra, plantain, and corn. American flour was then introduced, when the duties were low, and the poor people took to eating bread until its use became universal. But they can not buy flour at present prices—$9 per bag of 125 pounds at Barranquilla (against a former price of $6.25) and $14 to $18 in the interior.

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CENTRAL AMERICA.

REPUBLIC OF PANAMA.

GATHERING OF TORTOISE SHELL.

VALUABLE ARTICLE OF COMMERCE FROM THE ISTHMUS.

Consul James C. Kellogg, of Colon, describes the commercial aspects of the hawk's bill or imbricated turtle (*Eretmochelys imbricata*), which with the squamous species (*Eretmochelys squamata*) constitute the varieties of marine turtles that furnish the tortoise shell of trade, as follows:

The hawk's bill turtle is found only in the Gulf of Mexico and Caribbean Sea. This turtle is recognized by the low, wide head, a long, narrow mouth, the upper jaw prolonged and hooked like the beak of a hawk. The shell is flattened and serrated behind, with five vertebral and eight lateral plates overlapping one another like scales of a fish. The color is yellowish above, mottled with chestnut brown and yellowish white below. Young turtles have a black spot on the four rear pairs of plates. Old turtles have a thin yellow plate on the belly, which is much sought after and commands a higher price. This hawk's bill turtle feeds on seaweeds, crabs, mollusks, and fish. Being mostly carniverous, the meat is not considered wholesome, differing in this respect from the herbivorous turtles.

The shells shipped from the Colon district are taken from turtles caught on the Lagarto and San Blas coasts of the Caribbean Sea during the months of May, June, July, and August, when they approach the shore to deposit eggs, which are laid on the sandy beaches above high-water mark at night; holes are dug about 1½ feet deep and the eggs deposited therein; generally about three layings are made during a period of nine weeks. The eggs are lightly covered with sand and left to be hatched out by the heat of the sun. The turtles are caught either while on shore, or in the water by means of nets. As a rule, they are killed immediately after being caught, cleaned, and the shell frame washed with sand; but on the San Blas coast the Indians do not kill them, but at once proceed to remove the shell by subjecting the turtles to great heat, afterwards throwing the turtles back into the sea. By the application of heat the successive plates of shell come off very easily.

Turtles caught in these waters vary in size from 1 to 4½ feet long, with a maximum weight of 150 pounds, and the average weight of shell obtained from each is from 6 to 7 pounds. The commercial value of tortoise shell depends upon the thickness and size of the plates rather than upon the brilliancy of the colors. The price of shell in this market fluctuates from $3 to $6 gold per pound. As the best prices are obtained in England, the largest amount of the shell shipped from this part goes to that country. The San Blas Indians, however,

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trade a large amount of shell to coasting schooners, which is partly carried to the States and partly brought to Colon.

During the year 1905 the total amount of tortoise shell shipped from the entire consular district of Colon to all countries was estimated at 16,000 pounds. The total amount shipped from Colon alone in 1905 was estimated at 8,000 pounds, valued at $37,000 gold; of this amount, about 5,000 pounds, valued at $22,000 gold was shipped to England, and about 2,000 pounds, valued at $9,000 gold to the United States, and the residue of 1,000 pounds, valued at $4,500 gold, went to Germany. For the fiscal year ending June 30, 1906, tortoise shell valued at $11,219 gold was shipped to the United States from Colon.

HONDURAS.

FOREIGN TRADE FOR THE YEAR.

UNITED STATES LEADS—PRODUCTION OF SISAL.

Consul William E. Alger, of Tegucigalpa, sends the following report, showing present business conditions in Honduras and the value of foreign commerce for the fiscal year of 1905:

The latest available statistics for the financial year ending July 1, 1905, show an increase in the value of both imports and exports compared with the previous year. The difference in imports is $135,158 United States currency and in exports, $112,230. The United States, on account of proximity and facilities of intercourse, almost monopolizes the business of Honduras and is steadily increasing her lead. England has slightly increased her share of imports; Germany shows a small decrease; the other countries have not varied enough to call for remarks. The exports do not show the expected increase. This is owing to epidemic of yellow fever in the department of Cortes, preventing shipment of large quantities of bananas. In the exportation of minerals there is a large increase, owing to the fine condition of the Rosario mine, an American enterprise, and prospects indicate that this increase will be maintained.

BUSINESS CONDITIONS.

The industrial enterprises established here in the last few years—soap, candles, shoes, beer, and ice—continue on a small scale, but progress of such enterprises is slow in Honduras. Concession for a new bank was granted, and it is expected to open for business in the near future. An electric-lighting plant at Tegucigalpa will probably be concluded and in operation by the end of the year.

During the last year crops were abundant and a repetition of famine of previous year avoided, though the Government, fearing a scarcity, had imported several thousand sacks of corn, which were sold at cost. Exchange during the year has varied from 110 to 130 per cent. There is very little silver coin in the country. The mint has not coined silver for years, and unless some remedy is applied consequences will soon become serious. Propositions have been made by the Rosario company to take over and work the mint, but have not as yet been accepted by the Government.

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IMPORTS AND EXPORTS.

The imports for the year ended June 30, 1905, aggregated in United States currency $2,362,760, against $2,227,692 for the preceding year. The imports from the United States were $1,669,881, an increase of about $173,000 over 1904. From Great Britain the value was $212,765; Germany, $164,956.

The exports for 1905 aggregated $5,564,003, against $5,322,626 for 1904. The bulk of the exports went to the United States—$4,622,724. The export figures are stated in silver, the unit being equivalent to $0.465 United States currency.

FIBER PLANTS.

NOT CULTIVATED FOR LACK OF TRANSPORTATION.

Consul Dean R. Wood, writing from Ceiba, says that sisal is not produced in Honduras, at least in that district, in sufficient quantities for export. He adds:

Many kinds of fiber grow abundantly and without any cultivation whatever. In the interior fiber plants grow wild in very large quantities. The reason it is not cultivated for export is because on the coast people are engaged almost entirely in the cultivation of bananas, which give quick returns, and fiber plants in the interior can not be raised for exportation on account of lack of transportation. If the time ever comes when a railroad is built to tap the interior the exportation of fiber ought to be a business of importance. Sometimes the natives use the fiber for making halters, rope, etc., but generally for use in the immediate neighborhood. The most common kind of fiber is known here as "pita." I have seen some samples of fiber here of a very fine quality. If it were possible for a competent person to make an investigation of the fiber plants here some of them, I think, would prove of a superior grade. They can not be raised for export until the country is provided with better transportation facilities.

COSTA RICA.

PEARL-FISHING PRIVILEGES.

Consul J. C. Caldwell writes from San Jose that machinery is again permitted (from August 1) in the pearl fisheries on the Pacific coast of Costa Rica, subject to certain restrictions. Six months' licenses are granted for a maximum of 30 machines, which may work at a minimum depth of 37½ feet. Other stipulations are stated, and the report can be consulted at the Bureau of Manufactures.

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WEST INDIES.

THE ISLAND OF CUBA.

STEADY EXTENSION OF COMMERCE.

CONTINUED RAPID EXPANSION OF FOREIGN TRADE—VALUABLE POINTERS FOR AMERICAN EXPORTERS.

A comparison of British and American interests in Cuba is given in an able report from Mr. E. V. Morgan, minister at Habana. He points out the weak spots in the American trading efforts on the big island and gives an outline of the English commercial progress there, notwithstanding that the purchases of Great Britain from Cuba grow less each year. Mr. Morgan writes:

Recent activity on the part of Englishmen interested in Cuba bespeaks an ambition to extend their operations heretofore confined chiefly to railway development to other fields; for although there are a large number of vessels engaged in the Cuban trade, the majority are under American time charter. The total British investment, estimating railroads at $90,000,000, shipping at $5,000,000, and real estate and industries at $5,000,000, may be approximated at $100,000,000, as against nearly $120,000,000 of American money in the island.

The oldest and most profitable railroads in Cuba are owned and operated by British capital, namely, the Western Railroad of Habana, the United Railways of Habana, and the Cuban Central Railroad, which are owned by one group, while the stocks of the United, Marianao, Cardenas and Jucaro, and Matanzas railways are held by another group of London financiers. These lines form a network of communication through the west-central portion of the island, the great sugar and tobacco producing and the most fully developed and thickly populated part of Cuba, and serve Habana, Matanzas, Cardenas, Cienfuegos, Caibarien, Sagua, and Batabano, at which ports 86 per cent of Cuba's imports are entered and whence 83 per cent of the exports are shipped abroad. Sugar shipments constitute the bulk of the freight to the coast. Inward loads and passenger traffic are also dependent upon this staple, for the power of the rural population to purchase general merchandise and the ability of the country folk to travel over the lines is regulated by their sugar profits, direct or indirect.

THIS YEAR'S SUGAR CROP—MOVEMENT OF FREIGHT.

The sugar crop of the four provinces traversed by these railroads has been estimated for 1906 at 7,746,800 bags. It is probably not unsafe to say that fully 80 per cent of the total, or 6,197,240 bags, were

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carried by the British railroad lines at an average rate of between 20 and 80 cents, or 50 cents a bag, giving an approximate annual earning of $3,098,620 from this source alone.

Aside from the fact that the balance of foreign trade has long been in Cuba's favor, the location of the principal distributing centers on the coast would account for the notable preponderance of outward over inward bound freight. According to the census of 1899, which affords the most recent information available, 73 per cent of the population of cities of over 5,000 and 28 per cent of the inhabitants of the island were domiciled in the ports of Cuba, leaving Camaguey, Santa Clara, and Pinar del Rio as the only important focal points in the interior. Cuban wholesalers, moreover, estimate that 70 per cent of the general merchandise imported into Habana is reshipped, and of that amount 60 per cent transported by rail, for goods are sent as far as possible by sea, and the railways, on account of their high rates, used only as a last resource.

EXTENSION OF RAILWAY SYSTEMS.

Habana, the principal port of the island, with a population of 275,000 and a total trade worth $105,025,676, of which $65,183,479 are imports and $39,842,197 exports, is served by both the Western and the United Railways. The former runs through a rich tobacco and pineapple country to Pinar del Rio. The Cuban Central connects Cienfuegos, whose imports and exports aggregate $19,367,000, with Sagua, with a like total of $6,611,000, and then with Caibarien, where foreign trade reaches $5,755,000. Other cities on the line are small in size, such as Santa Clara, Cruces, Camajuani, and Placetes. This district produces 38 per cent of the sugar output as well as a considerable tobacco crop.

The United Railways connect Habana with Matanzas, the foreign trade of which reaches $11,750,000, and also with the small cities of Batabano on the south coast, Guanajay, Guines, Regla, Jovellanos, and Guanabacoa. The company controls the Marianao suburban passenger line and the Cardenas and Jucaro Railway, the latter running through a cane and tobacco country, the principal port of which is Cardenas, where the imports and exports aggregate $12,241,459. It is stated that the United Railways interests have in addition purchased the Matanzas Railroad for $10,000,000. Matanzas is the only point at which it reaches the coast, but it connects with other roads and its inclusion in the system greatly strengthens the whole.

The Habana Electric and Habana Central are under aggressive American management, but their capitalization, including the investments represented by the Insular Railroad Company and the Cuba Electric Company, totaling $16,000,000, is to a considerable extent English and Canadian. The Habana Electric is the older company, while the Habana Central, having been organized for little over a year, is as yet in course of construction. It is hoped that when the latter is completed it will be able successfully to compete with the established roads which now handle the tobacco and sugar in Habana Province. A large proportion of the year's pineapple shipments have been made over the company's newly laid tracks, and the fruit farmers in the vicinity of Habana have been well satisfied with their treatment.

The Cuba Company, with an authorized capital of $20,000,000, is controlled by a Canadian president, Sir William Van Horne, although

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80 per cent of the stock is supposed to be held in the United States. It runs from Santa Clara to Santiago, a port handling $10,771,000 in foreign trade.

The road has been hastily built, and the company by the erection of sugar mills and special inducements to settlers is endeavoring to develop the country in order to create its own traffic. An extension to Holguin to connect with the Holguin and Gibara Railroad reaching the coast at the latter place is under construction, and a branch has already been completed to Antilla, the port on Nipe Bay, which the company intends to make one of the most important shipping points in Cuba. With the increase of population, the encouragement of immigration, and the bright outlook for a continued period of prosperity the railroad stock quotations are now generally above par and should so remain.

THE SHIPPING TRADE.

Cuba's foreign trade is borne by vessels which receive $16,000,000 per annum for freight charges. The "tramp" steamers and those operated by "mail" lines mark a division virtually of export and import carriers, for, though the last named do a steady business both to and from the island, the former transport the bulk of the sugar output. The Spanish, German, and French mail companies bring general merchandise from Europe, in most cases returning by the same route. The American services operate between Cuba and New York, Tampa, Miama, New Orleans, Mobile, and Galveston.

American shipping companies employ almost exclusively British and Norwegian tramp steamers. There are five British freight lines which maintain regular services with England, Spain, and Cuba, one which plies between Habana and Buenos Aires and Montevideo, and another subsidized by both Mexican and Canadian governments, running between these countries and Cuban ports. The Royal Mail Steamship Company has also recently been sending a monthly boat to Habana with passengers and freight, returning either via West Indian ports or the United States. The five lines to Spain and England as well as the company trading with South America, although owned in either Liverpool or London, fly the Spanish flag on the majority of their vessels, a heritage from colonial days, when the mother country gave her own ships preferential treatment in the payment of port and customs dues. It is safe to estimate therefore that 60 per cent of the Spanish tonnage and values of goods borne in Spanish bottoms should be included in the British totals. Of the $101,165,992 Cuban exports for the fiscal year 1904–5, Cuban vessels carried $7,860,444 values, American vessels carried $36,134,088, British vessels $33,476,502, Norwegian $14,770,496, and Spanish $2,629,693. The division of the $92,959,057 import-carrying trade was $11,359,756 for Cuban vessels, $37,240,141 for American vessels, $7,402,288 for British, $17,904,256 for Spanish, and $6,558,535 for Norwegian vessels. Whereas Cuba exports raw products, sugar, fruit, and timber, rather than finished articles, she imports manufactured goods, machinery, textiles, coal, and provisions.

The tonnage statistics for the year 1905 have not yet been prepared by the Cuban Government, but an estimate shows that American vessels with 33 per cent and British with 26 per cent of the tonnage cleared, respectively, carried 36 per cent and 35 per cent of the export

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values. Of the total tonnage entering Cuban ports 34 per cent was American and 25 per cent British, but 40 per cent of the total value of imports was borne by the former and 19 per cent by the latter vessels. In exports from Cuba to the United States American vessels carried 30 per cent and British vessels 39 per cent. The profits of the annual carriage of nearly a million tons of sugar paid for and used in the United States should accrue, though they do so now only in part, to vessels flying the American flag.

EUROPE SHIPPING TO CUBA VIA NEW YORK.

There is a tendency on the part of the Cuban buyers to require an early delivery. Instead of shipping by the direct but slow steamers sailing from Liverpool touching at continental ports and making the journey to Cuba in 16 or 17 days, the European manufacturers take advantage of the frequent communication between Europe and the United States to bill to Habana via New York, there transshipping to the Ward or Munson Line. From three to four days to a week are saved in this manner, the gain in time and lightened insurance charges in transit counterbalancing the extra outlay of from 2 to 3 per cent in freight rates.

The principal British purchases from Cuba—cigars, tobacco, rum, and hard wood—are for the same reason shipped via New York. In the fiscal year 1904–5 32 per cent of the value of British goods imported into the island were borne in American and 37 per cent in British bottoms, while of the goods exported to Great Britain 92 per cent were carried by American and only 8 per cent by British vessels.

The British and Norwegian chartered tramp steamers enter Cuban ports in ballast or bring Indian rice, coal, timber, flour, rails, or general cargo from the United States, all, however, relying principally on the 7½ to 8¾ cents per hundred pounds sugar freights to that country for their profits. The greater initial cost and running expenses of American vessels make it necessary for them to carry more valuable cargo and secure higher rates.

Of the American lines, the P. & O. derives practically all its profits from the passenger traffic. The Mackay and Morgan lines and the Galveston Steamship Company, the latter with chartered vessels, do a steady general trade, while Cuban bottoms credited with carrying 12 per cent of the import and 8 per cent of the export values are virtually controlled by the Ward and Munson lines. The former at present transports by far the greater proportion of American borne trade, and it is not at all unlikely that a rival company may be organized in New York. The Munson line and with it the Compania Maritima Cubana are the largest American charterers, rarely, however, employing American craft.

DIVISION OF TRADE.

BRITISH SUCCEED BY MAKING GOODS TO ORDER.

Articles of British manufacture imported into Cuba are sold either by resident agents, by traveling salesmen who visit the island once or twice a year with samples, or by local brokers on a commission. Only a small number of English houses are engaged in general business, except in the textile trade, the bulk of the transactions being handled

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by American, Spanish, and Cuban firms. Cuban imports during the first half-years of 1904 and 1905 from Great Britain and the United States show the following comparisons:

Articles.	Year.	British.	American.
Provisions and liquors	1904	$1,500,937	$5,285,018
	1905	1,152,032	7,214,602
Textiles	1904	3,726,118	504,428
	1905	3,734,161	848,532
Metals and manufactures thereof	1904	888,592	2,155,842
	1905	704,963	2,581,913
Cattle	1904	50	1,212,592
	1905	139	818,015
Drugs and chemicals	1904	188,436	697,086
	1905	186,118	881,384
Leather and manufactures thereof	1904	13,442	729,578
	1905	17,845	1,004,250
Timber	1904	56,212	626,387
	1905	42,226	783,524
Glass, crockery, and porcelain	1904	72,052	121,823
	1905	85,885	142,405
Cement	1904	3,061	36,012
	1905	5,605	143,687
Stationery and books	1904	11,492	206,277
	1905	7,648	506,216
Coal	1904	32,821	918,914
	1905	25,047	939,772
Other articles	1904	112,545	2,922,546
	1905	449,454	3,780,759
Total	1904	6,605,758	15,416,503
	1905	6,411,113	19,647,059

The total imports from all countries in these two half-year periods was $39,872,456 in 1904, and $49,993,862 in 1905.

Textiles are largely imported during the early part of the year, which accounts for the fact that they constitute 58 per cent of the total imports from Great Britain during the first half of 1905. It is, however, safe to say that they represent from 35 to 40 per cent of the value of all articles brought from the United Kingdom and 54 per cent of all textiles sold on the island ($8,114,600 in 1904). The sales, moreover, are increasing, notwithstanding the 30 per cent reduction on American goods, which at present supply but 11 per cent of the market.

WHY CUBANS DO NOT BUY AMERICAN TEXTILES.

Cuban wholesalers state that there is generally little difference between American and English prices, and that in some cases the English goods are even slightly more expensive. They attribute the insignificant American sales to the failure of American manufacturers to cater to the Cuban market. Widths, weights, colors, and designs are made to suit the home trade, and unless the foreign buyer is willing to handle such "stock" articles the sales in the United States are possibly so profitable that rather than change their methods to meet his specifications the manufacturers prefer to let him make his purchases abroad.

In England, however, the mills make goods to order, are willing to meet their customer's wishes in every way, and to supply him with the articles he requires, taking it for granted that he is capable of judging the needs of his local trade.

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The dealers admit that an extension of the reciprocal concessions at present in force would increase American sales, but state that this would be due not to their ability to supply the market at the rates charged for similar and equally desirable articles, but to the fact that they could afford to dispose of the goods at greatly reduced prices. Knit goods comprise 25 to 30 per cent of textile imports. The use of Egyptian cotton, highly valued by the Cubans on account of its color and long staple, and the system of straight or direct weaving used in England and on the Continent, which is preferred to the American circular or rotary method, with its stretch in the broader portions of the garment or stocking, are responsible for the large preponderance of foreign over American sales in this branch of trade.

SHIFTING OF TRADE.

There has been a falling off in British exports to Cuba of machinery, drugs and chemicals, provisions and liquors, coal, stationery, and timber, and a corresponding growth in American trade in these articles. Cuba's importation, however, of British cottons, woolens, leather and manufactures thereof, glass, cement, and miscellaneous articles have increased in value.

Rice and sugar bags have heretofore been largely imported from India through London and Hamburg houses, but Americans are now entering the field with considerable success; and if rice of foreign origin, cleaned in the United States, could be admitted as a product of the industry of that country, these firms would be in a position to compete even more successfully with their foreign rivals.

British figures show that while in 1903 $953,510 worth of sugar was exported to Great Britain, the trade fell to $1,455 in 1904, the first year of reciprocity; and that where Great Britain imported $6,590,800 worth of Cuban products in 1903, the following year saw a decrease of $688,300, due to the reduced tariff on sugar which attracted practically the entire output to the United States.

BRITAIN BUYS LESS AND SELLS MORE.

While British importations of Cuban goods have fallen off, British exports to the island have shown a steady increase in the three years 1902, 1903, and 1904. The statistics for the twelve months of 1905 are not yet completed by the Cuban Government, but The Economista, a Cuban commercial journal, quoting an article in the Commercial Report, states that in 1905 exports from the city of London to Cuba had exceeded the figure of 1904 by $284,155, which, in view of the statistics for the first semester, shows a remarkable activity in the final six months of the year. A summary of Cuban imports from and exports to Great Britain for years 1900 to 1904, inclusive, with percentage of total import and export values represented thereby, shows the following:

	1900.		1901.		1902.		1903.		1904.	
	Dollars.	*P. ct.*	*Dollars.*	*P. ct.*	*Dollars.*	*P. ct.*	*Dollars.*	*P. ct.*	*Dollars.*	*P. ct.*
Imports.....	10,463,300	15.7	9,562,600	14.3	9,099,500	15.1	10,799,800	17.0	12,684,700	16.4
Exports.....	5,427,700	11.2	5,941,300	9.3	5,807,200	9.1	6,590,800	8.6	5,902,500	6.7
Total trade.	15,891,000	13.7	15,503,900	11.9	14,906,700	11.9	17,390,600	12.4	18,587,200	11.2

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Cuban exports are evidently purchased in England only when, in competition with similar articles from other markets, they are cheaper. On the other hand British goods are constantly sold to fill certain definite Cuban demands which reciprocal concessions and geographical advantages will not enable the American manufacturers to meet until they are willing to adapt their methods and their output to the conditions and requirements of the country whose markets they wish to supply.

SYSTEMS OF SELLING.

A system of credits has been developed by the British houses with special reference to local conditions and the preferences of their clients. They allow their purchasers credit up to a certain sum, charging 6 per cent interest on accounts outstanding. The standard of commercial honesty is high, and the Spanish or Cuban firms, established for many years, resent the attitude of the American wholesaler who, to make quick sales, demands cash payments and gives 2 per cent discount for a ten-day settlement.

Aside from the injury to their own interests caused by their failure to recognize the necessity of adopting a credit system, American shippers who have only recently actively sought to develop their foreign trade are not as cognizant of the details of the export business as are their more experienced British competitors. The latter are painstaking with their invoices, which are made out in Spanish. Bills of lading precede shipments, and clerical errors involving the detention of the goods in the custom-house, a lengthy correspondence, and the possible eventual seizure of the consignment are rarely allowed to pass unnoticed, while articles are delivered in accordance with the stipulations of the original contract. American manufacturers, on the other hand, have in some cases failed to acquaint themselves with the customs regulations and in certain instances have shown a tendency to substitute goods "just as good," but of a different character, for those called for in the terms of sale.

BANKS INFLUENCE TRADE.

British banking interests are represented by branches of the Royal Bank of Canada and the Bank of Nova Scotia. The former institution, with its central offices at Montreal, has a total capitalization of $3,000,000, a reserve of $3,437,162, and an estimated Cuban investment of $1,000,000. Besides the main branch at Habana there are five subordinate establishments at important points throughout the island. The Bank of Nova Scotia, which has opened its Habana office only within the past year, has its main offices at Halifax and is capitalized for $2,500,000. These two banks, with the private banking establishments, besides doing the largest part of the ordinary commercial business of Habana, make long loans on sugar-crop and warehouse receipts and cattle, their charges varying from 6 to 8 per cent on ordinary and from 10 to 12 per cent on cattle and sugar loans.

Unlike some American houses, British merchants do not make it impossible for the buyer to secure delivery until he has paid for the goods and obtained the bills of lading from the bank, but themselves borrow on their sales with the understanding that all payments made by the purchaser shall be applied in liquidation of the bank's claim. In this manner the local merchants are saved the annoyance of dealing through a third party and the transaction is more satisfactory in every way.

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COLONIZATION AND PLANTATION INTERESTS.

In the past two or three years several Canadian colonization companies have been organized and have purchased large tracts of land in Pinar del Rio and Puerto Principe, as well as acreage in Santiago Province. These areas have been sold in small lots to settlers, many of whom remain in Cuba merely for the winter, others, however, having established themselves permanently on Cuban soil. Canadians have also been interested in American companies of a similar character, and it is estimated that the total British land investment amounts to nearly $2,000,000.

The Cuba Review and Bulletin shows that the 30 American sugar plantations in Cuba will produce 2,227,000 bags, or 28 per cent of the crop, while the 6 British plantations will produce 351,000 bags, or 3 per cent of the total.

TRADE WITH CANADA.

The Cuban consul at Halifax, Nova Scotia, in his report for the year 1905, says that Cuba sent very little to that port during the period mentioned. With the exception of some $340,000 worth of tobacco Cuba's exportation to Canada was almost nothing.

During the last five years Canada's importations from Cuba increased 2.26 per cent. The heaviest importation was in 1904, when Cuba sent to Canada $367,808 worth of goods, which was the largest of any year. Tobacco, in leaf and manufactured, and a little molasses was the sum total of Cuba's shipment to Canada during the year 1905. In five years no Cuban sugar has gone to Canada, and only the little molasses mentioned. The state of affairs is due to the preferential rates granted sugar from the British West Indies and other British possessions. In the last five years the exportations from Canada to Cuba have increased 53 per cent. From $578,013, in 1901, these exports grew to $877,879 last year. The principal items are codfish, potatoes, lumber, beans, hay, oats, and whisky. Of the Canadian exports to Cuba 85 per cent were shipped from Halifax.

COCOANUT GROWING.

METHODS AND PROFITS OF BARACOA PLANTATIONS.

Consular Agent A. F. Lindley reports from Baracoa that for the year ending June 30 there were exported from that Cuban port 18,500,000 cocoanuts, mostly to New York and Philadelphia, an increase over last year of about 4,500,000. Mr. Lindley describes cocoanut growing as follows:

In the choice of location cheap land useless for other purposes can be utilized. The soil must be loose, but it does not matter if it is rocky, and if there is running water through the land so much the better, for the cocoanut needs plenty of water, and if the trees have it the nuts are more apt to be large in size, which is shown after the rainy season by an increase in diameter of about 1½ inches. Sandy soil is good; in fact, trees planted on the beach produce sooner by

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about a year. The salt water does not hurt them, some of the roots of the tree even extending into the ocean.

Good uncleared land for plantations can be bought in Baracoa at $2 to $4 an acre. It is best to plant sprouted nuts. These can be obtained at about $3 a thousand if they have to be bought, but if there are some trees already on the land it is possible to contract the gathering and planting at 1 cent a nut. The best nut to plant is the San Blas. These nuts must be bought in South America. The San Blas nut is a free huller, and consequently brings a better price in the States; and the cocoanut disease, as far as I know, has never attacked this variety. It was also the choice of the British Government in furnishing nuts to Jamaica to be planted, after the hurricane had destroyed the trees there.

CACAO AND BANANAS AMONG COCOANUTS.

The nuts should be planted about 28 feet apart—about 55 trees to the acre. The land must then be kept clear of weeds and grass, until the trees are large enough to shade the land well. After that the plantation should be cleared about twice a year.

When the trees are large enough so that the cattle can not reach them and injure the leaves, the land may be used for grazing purposes, but it can be more profitably used in the growing of cacao. Cacao trees can be planted 14 feet apart, or about 150 trees to the acre, with the cocoanut trees. Citrus trees also do well in the grove. When cacao is planted, bananas also should be planted near the young cacao trees to give them shade; so that in a plantation there may be growing cocoanuts, bananas, and cacao at one time. The banana tree is only allowed to stand until the cacao tree begins to bear (about the third year).

The cocoanut tree begins to bear in about five years on the seashore, and in seven or eight years inland. Age does not count against the tree; in fact some of the best trees here are over 50 years old. Each tree drops about 60 nuts a year, although one often hears the statement made that a tree gives a nut a day. The nuts are gathered twice a month, hulled, and brought in to the exporter. The hulling is done on an instrument similar to a garden hoe. The operator stands on the handle and holds the nut in his hands, and with three or four downward twisting motions pulls the husk off the nut. One man can gather and husk 1,000 nuts a day. The expense of gathering and husking is $1.50 per thousand.

SELLING PRICES AND BY-PRODUCTS.

The nuts are received by the exporter at the rate of $4 a thousand for nuts under 3¾ inches in diameter, and the same for sprouts and cracked nuts, while the price of the first-class nut runs from $10 to $18 a thousand, delivered. From 27 to 30 per cent of all the nuts run small or bad. Taking everything into account a planter should get about $6 a thousand as profit, or about 26 cents a tree per year. It does not pay the farmer to bring in any but the first-class nuts, but the balance can be used to feed hogs (cocoanut meat is very fattening, and the lard from cocoanut-fed hogs is very stiff), or the nuts can be turned into oil, which is very profitable if the plantation is a

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large one. One thousand cocoanuts give 800 pounds of almendra, shrinkage is 33⅓ per cent, thus netting 530 pounds of copra, which in turn will yield 30 gallons of oil. Oil sells in Baracoa at 35 cents a gallon. These figures are from the hand process, and, of course, an oil mill would do much better.

There is one cocoanut-oil mill here which ships about 25,000 barrels of oil to the different parts of Cuba, none of it going to the United States.

The husk is not used here, but it can be used for the manufacture of door mats, etc., and I am told that lately it has been used successfully for insulation purposes. For the last few years there has been a disease here that kills the cocoanut trees, but does not seem to be doing much damage. According to reports of both Professor Busck and Doctor Smith, of Washington, the disease is caused by a microbe which kills the trees. Their advice was to cut down the tree as soon as it shows any signs of being diseased. The advice has certainly proved good, and where it has been followed out the disease has disappeared, while in other places where this has not been done the disease seems to be gaining.

BERMUDA.

UNITED STATES LOSING TRADE IN MANY LINES.

Consul W. M. Greene reports from Hamilton that, in proportion to its population, the import trade of Bermuda is valuable, reaching an average of $87 per capita. Mr. Greene continues:

The commercial needs of Bermuda merit the attention of American exporters. There is no reason why, with enterprise and push, the United States, having regular and frequent communication with the island, should not lead in all classes of goods. Great Britain is fully alive to the situation and not only keeps her large trade but is increasing it, especially in clothing, cotton goods, linen, silk, straw and woolen goods, and canned products. The flour trade seems to show a tendency to pass largely into British and Canadian hands. A special feature of British flour is the blended article made from blended wheat from all markets. It finds much favor. In malt liquors, spirits, wine, cigarettes and tobacco Great Britain is easily first. Canada also gains continuously in exports to Bermuda of flour, provisions, hay, grain, and feeds, besides appearing as a new competitor in such lines as boots and shoes, jewelry, cotton goods, and paper.

The year 1905 witnessed a falling off in all imports of some $200,000 as compared with 1904, due to a reduction in colonial expenditures by the British Government, but America is suffering the greatest losses in sales. The United States fell off in many lines of commerce. In heavy goods, such as lumber, boats, machinery, agricultural implements, electrical goods, carriages, hardware, etc., there was a reduction of $43,000. In fertilizers, drugs, paints, and oils the loss was $20,000; in woolens, clothing, cotton goods, boots and shoes an equal amount. In flour American exports declined $27,000, and in groceries $70,300. Only in feed stuffs was there a slight gain.

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AMERICAN ARTICLES PURCHASED.

The total imports from the United States amounted to $1,288,661, a decrease of $147,219 from 1904. The leading articles of import were as follows: Lumber and manufactures, $64,583; carriages and bicycles, $15,783; furniture, $26,104; hardware, $31,262; machinery and metal work, $45,152; fertilizers, $22,970; kerosene, gasoline, and naphtha, $44,524; drugs, oils, and paints, $31,161; paper, stationery, and books, $17,115; musical, photographic, and jewelry goods, $38,820; meats and animals, $234,303; feed stuffs, $79,841; butter and cheese, $47,035; canned goods, $52,510; coffee, cocoa, and tea, $11,782; fish, $17,057; flour, $47,906; sugar, $37,769; other food stuffs, $151,797; soap and starch, $13,407; cotton goods, $48,276; clothing, $27,257; alcoholic drinks, $7,864; cigars and tobacco, $19,174; and coal, $23,364.

IMPORTS FROM GREAT BRITAIN.

Great Britain supplied Bermuda with $813,666 of goods, among which may be noted $153,799 alcoholic drinks, $91,101 of clothing, $95,257 of cotton goods, $109,886 of other textiles, $77,047 of canned goods, $24,766 of flour, $46,354 of building materials, $18,366 of jewelry and plated ware, and $24,421 of tobacco goods.

Canada's exports to Bermuda amounted to $394,899, of which $62,272 worth of butter and $57,488 of flour were the leading articles; cotton goods, clothing, boots and shoes, jewelry and plated ware totaled $15,232; while lumber, carriages, furniture, hardware, and machinery aggregated $38,455. Germany sold in the island drugs, canned goods, malt liquors, cigars, matches, and sugar to the amount of $11,504. Teneriffe supplied $11,217 of onion seed.

TOTAL FOREIGN TRADE.

The total commercial imports of Bermuda amounted to $2,585,937. The total exports of products figured at $592,927 for Great Britain, Canada, West India Islands, and the United States. Of this amount America took nearly 90 per cent, or $528,593, in value of shipments. The largest sales made by Bermuda to Great Britain were about $4,000 each of arrowroot, hides, and flowering bulbs, the total exports amounting to only $23,000. Canada bought only $14,468 of Bermuda's products, the largest items being $4,326 of onions and $2,199 of hides. The United States bought 347,282 bushels of Bermuda onions, paying therefor $294,367; also $110,909 of Bermuda potatoes and $22,000 of Bermuda vegetables.

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NORTH AMERICA.

THE REPUBLIC OF MEXICO.

YUCATAN.

A COUNTRY OF WEALTH, IMPROVEMENTS, AND GREAT COMMERCE.

Consul Edward H. Thompson, of Progreso, writes that probably not one in a thousand of the general public know of the existence of the Mexican State of Yucatan. Even American merchants and manufacturers only know it as a region whence comes almost all the sisal fiber, and that it is a point to which much merchandise is sent. But the consul shows Yucatan to be a land of modern civic and commercial life and of expanding trade with the world, as some of the points from his excellent report will exhibit:

Yucatan, fifty years ago one of the poorest of the Mexican States has become one of the richest. Merida, the capital, has well-paved streets, well lighted and well cared for by a corps of "white wings." Well-built homes, some of them actual palaces, and all clean and newly painted, line the streets far into the country. A well-built system of mule cars extends all over the city and is an important factor in the growth of the city. On the north and west, where the city is growing most rapidly, are the picturesque and properous colonies of Itzimná and San Cosme, where some of the wealthy families have their summer villas. Merida has three prosperous banks, high standard male and female colleges, 35 public schools, night schools, a complete State law school, and a successful State school of medicine, which for years was presided over by Dr. J. M. Tappan, a Harvard graduate.

Merida commercially drains the products of and furnishes supplies to an area of 50,000 miles of territory, with 300,000 inhabitants. The natives are becoming a large factor in the consumption of imported articles. The families have their sewing machines, furniture, and portraits, the latter enlarged in the United States, and these people are well worth catering to.

EXTENSIVE IMPORTS—SEVERE STRAIN ON PACKAGES.

Progreso, the port of entry, is a sea town, with wharves and warehouses, the former being well-built structures of wood and iron extending 500 to 1,500 feet into the Gulf. Owing to the open roadstead and the shelving sea floor, the regular steamers and larger merchantmen lie at anchor some distance out, often 5 miles, requiring a large number of lighters for transport of merchandise to the wharves and in return to carry out the bales of hemp.

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Transference of goods from a ship's hold and tackle to a lighter bottom, from wharf to railway station, and thence into cars tends to breakage. Hence it is well to "pack too strong rather than to pack too light, and pack well." As railroads now extend in Yucatan to nearly all places where goods are called for, there is no further need to pack in small sizes. The packing and casing, however, must be extra strong to cope with the unloading in a heavy sea into a swaying, heaving lighter, which is often the case.

Progreso is really a city of agents whose principals reside and do business in Merida. Through three firms [names of which can be secured from the Bureau of Manufactures] pass all the imports and exports of Yucatan. The principal imports for the calendar year 1905 were machinery and hardware, including railway supplies, corn, flour, and hay, lumber, groceries, including preserves, canned goods, and cheese, druggists' supplies, dry goods, including ribbons, thread, and the finer cloths, felt and straw hats, wines and liquors. During the calendar year 1904 the total value of exportation from Yucatan reached the sum of $32,000,000 Mexican. Of this considerable sum about 75 per cent, or $24,000,000, filters out of the country again, of which four-fifths is in payment of imported materials, one-tenth is used in impost duties and payments of interest, and one-tenth, or over $2,000,000, is spent by the people of Yucatan in travel abroad.

AMERICAN SUCCESSES—FURTHER PROSPECTS.

Inasmuch as the United States consumes 95 per cent of the total output of Yucatan it would seem that our country should supply 95 per cent of the imports, but domestic claims and competition here steps in. The other States of Mexico supply cotton cloth from the Puebla and Veracruz looms, cattle from Tabasco and Tampico, corn from Guanajuato, bottled beer of good quality from the great breweries of Orizaba, Toluca, and Monterey. Shoes, sugar, rum, and tobacco, both in leaf and manufactured, come from Veracruz and other States. Twenty years ago most of these articles were imported from the United States and the foreign countries. Each year finds the national competition keen and able on new articles—an index of Mexico's progress.

But the United States looms up big in the commercial horizon with her 45 per cent share of Yucatan's entire imports. Other foreign countries are prominent in specialties, as France with her wines, Belgium with her rails, etc., Great Britain with engines and general merchandise, with Spain next in rank. To keep up our commerce with Yucatan we must devote decided attention to the most vulnerable points. As Yucatan produces but little else than sisal, she uses much preserved meat, vegetables, fruits, and other canned goods, and the market is capable of great expansion. Canneries are now at work at various points in Mexico, but as yet do not seem to make much impression on the Yucatan market. American canned goods should be able to hold their own here for many years. The demand is increasing; where one can of preserved fruit or meat was eaten ten years ago, ten are now consumed.

WHAT PERSISTENCE ACCOMPLISHES.

In machinery the United States has a great purchaser in Yucatan. Twenty years ago English machinery, engines, and boilers were seen

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nearly as often as were those of American make. Now the American foundry and factory products are more in evidence. In the matter of windmills also a good showing has been made. That Yucatan is a windmill country is evident by looking from a housetop, with the graceful, slender steel towers in sight in every direction. There are over 1,400 windmills in the city of Merida alone. When I first commenced my windmill crusade every windmill in the entire country was a wooden affair from Belgium or France. On every side and at all times rose creaking cries from wooden sheaves, badly working shafts, and rattling wings. Now not a single wooden windmill can be seen—all are steel mills. Three companies are strongly competing, and as they are all American I am content.

On certain other iron products, notably that of portable rails, I am not so well pleased with the results of our efforts. Yucatan consumes annually a very large amount of these portable rails, and ought to be able to buy them of the United States, as she does almost all of her standard and narrow-guage rails. Despite all my efforts for several years and scores of personal letters, I have not yet been able to record a single case where a United States mill has successfully competed with the Decauvilles of France and Germany.

VALUABLE EXPORTS—PROGRESS OF PEOPLE.

The Yucatan exports for 1905 consisted of 597,289 bales of sisal fiber, valued at $29,625,430 Mexican, $117,500 worth of skins, and $18,200 of chicle. During the last ten years the single product of sisal has produced the enormous sum of $297,000,000 Mexican silver, as income to the State and people. New cattle ranches are springing into existence and the exportation of hides and hair will become of more importance. Chicle is the milky sap of the sapote tree and is used for chewing gum. This gum is now exported more from the adjacent territories than from Yucatan.

The State is progressing in education and the modern things of life. Out of a State budget of a little over $2,770,000 the public school appropriation was nearly $300,000. The State hospital and the State penitentiary are newly built public institutions, on which no expense has been spared to make them model institutions of the kind for this climate. The latest appliances and adequate facilities have been secured. Private bequests have also built other semipublic hospitals.

The wealthier class of Yucatan are great travelers, and make many trips to New York, London, Paris, Vienna, and other centers. From this familiarity with the world there comes great good to the general progress, and benfits even those who have remained at home.

Mr. Thompson's report is replete in historical, geographical, sociological, and climatic information concerning Yucatan, revealing his intimate knowledge and years of research along these lines. The report can be consulted at the Bureau of Manufactures. He believes that in time the ancient ruins of great stone structures, pyramids, massive palaces, etc., will attract the interest of the tourist as much as those of Italy or Egypt.

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VERACRUZ.

BUILDING AND OTHER OPERATIONS AT GULF PORT.

Consul William W. Canada reports that the municipality of Veracruz has been perfecting extensive plans with a view of improving the present municipal building, constructing a new county jail, and erecting a modern market structure.

The present intention is to construct these new buildings of cement, large quantities of which will also enter into the reconstruction of the municipal building. To meet the cost the city government is arranging for a loan with the Banco Central Mexicano. The bonds are to be floated at 85½, bearing interest at 5 per cent annually. The total issue will amount to $1,754,400 Mexican.

The governor of the State has been authorized by the legislature to issue bonds for a loan to be raised for the purpose of meeting the costs of the projected sanitary work and new water supply at the port of Mexico (Coatzacoalcos). The Federal Government is expected to set aside 2 per cent of the sum of the import duties collected at this port to cover this outlay, and also to pay the interest on this loan, not to exceed 5 per cent annually for the term of twenty-five years. At the expiration of this term the State will redeem these bonds in full with interest.

The exports of seed rice to the United States from the port of Veracruz seems to have taken on greater proportions, as the exports for the March quarter reached the sum of $31,093. The total value of all the rice produced in the States of Tabasco and Veracruz during the past year amounts to $708,000, the greater part of which falls to the State of Veracruz.

As a sure indication of the increasing importance of business transactions in this vicinity may be mentioned the fact that the Banco Mercantil of this city has increased its capital stock in the sum of 1,000,000 pesos ($500,000 gold). Several other institutions have followed this example; one of them has increased its capital by 4,000,000 pesos. The Compañía Bancaria de Cordoba has just opened its doors for business at Cordoba. It is capitalized at $100,000, and its business is assured, owing to the heavy coffee interests at Cordoba and vicinity.

FEMININE READY-MADE GARMENTS.

Until within a year or two ago ready-made garments for ladies and children were not on sale, with a few exceptions, as, for instance, silk waists, at from 25 to 45 pesos (peso = 50 cents gold) each, and coats, capes, etc., of cheap cloth and silk, which sold for from 30 to 100 pesos per garment. All these goods were imported either from France or Spain. After a while tailor-made skirts were exhibited in the show windows. At present ladies' skirts of wash goods can be had at from 20 to 30 pesos. This consulate has at different times distributed catalogues from prominent mail-order concerns in the United States, and we know that this has resulted in some trade from here, but it is clear that the Veracruz retailer was compelled to cut loose from his ancient methods of business and adapt himself to modern customs. A similar

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reason may be advanced to account for the importation of silk blouses, skirts, capes, coats, ladies' lingerie, etc., from France.

For a few years past an enterprising lady received by every steamer from France several trunks with ladies' fine garments, which she disposed of readily among the better class at good figures. The person alluded to was evidently a close student of human nature, for she was very accommodating and readily gave credit where she knew her confidence was not misplaced. Here then one has the incentive that prompted the retail dry-goods trade to handle ready-made garments. But the lines of stock are far from complete; there is no variety to choose from and the trade is yet in its infancy. Shirt waists may be had at from 6 to 20 pesos each; they are made of cambrics and so-called linens, trimmed with cheap laces or embroidered. White underskirts, nightdresses, chemises, drawers, corset covers, dressing sacks, wrappers, house dresses, children's and misses' aprons and infants' clothes of ordinary grades, can not be had ready made, with the exception of a few blouse suits for boys of from 3 to 5 years. There is nothing more here at the present time. The great desideratum is cheapness; for the import duty is an item to be taken into consideration.

UNDESIRABLE ORIENTAL ARRIVALS.

The passenger traffic at Veracruz assumed important dimensions during the fiscal year 1905–6, due principally to the heavy immigration from Spain and Syria.

Among the people from the latter country may also be classed Arabs and Turks. Farm labor is sorely needed in all parts of Mexico, but neither the Spaniard nor the Syrian comes here with the object of engaging in agricultural labor.

The first-mentioned people seek to obtain employment in cities as grocery and dry-goods clerks, barkeepers, etc., while the Syrians take to peddling cheap laces, calicoes, hosiery, toilet articles, common pocket cutlery, brass jewelry, and many other articles of the cheapest grades. These they dispose of to the poorer element, even to the extent of giving credit—an attractive feature to the improvident native. All the Syrians, Arabs, and Turks this city is able to support may be seen during the morning hours exposing their wares in the vicinity of the public market, after which time they shoulder their packs, men and women alike, and travel from house to house in the poorer districts of this city.

From here great numbers of them find their way into the interior, and doubtless also to the United States. The local press has repeatedly called attention to the undesirability of this latter class of immigrants in strong terms, so much so, that a protest was made by a representative Syrian (probably interested in transportation), which, however, though a lengthy article, proved nothing.

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CANADA.

INCREASED FOREIGN TRADE.

A LARGE GAIN OVER THE PRECEDING YEAR ENDING JUNE 30.

Canada's foreign trade for the year ending June 30 last was $552,000,000, an increase of nearly $82,000,000 over the previous year. The increase was general.

The imports entered for consumption amounted to $290,342,408, an increase of $28,430,973 over 1905. The exports of domestic produce amounted to $235,483,960, which was $44,529,010 in excess of the fiscal year 1905. There was also an excess for the year of about $9,000,000 in exports of foreign produce, principally American.

Taking the trade of Canada by decades since 1876, the following is the result: 1876, $174,176,781; 1886, $189,675,875; 1896, $239,025,360; 1906, $552,000,000. The exports of Canadian farm produce were $120,518,297 as compared with $93,331,608 for the previous year, an increase of $27,186,689. The forest shows an increase of $5,000,000, the fisheries of $5,000,000, and manufactures of $3,500,000.

The returns for the year are as follows:

IMPORTS.

	1905.	1906.
Dutiable goods	$150,914,668	$173,027,710
Free goods	100,688,332	110,236,095
Coin and bullion	10,308,435	7,078,603
Total	261,911,435	290,342,408

EXPORTS.

Mines	$31,932,329	$35,469,631
Fisheries	11,114,318	16,025,840
Forests	33,235,683	38,824,170
Animals and their produce	63,337,458	66,455,960
Agricultural	29,994,150	54,062,337
Manufactures	21,191,335	24,561,112
Miscellaneous	49,675	84,906
Total	190,854,946	255,483,956

BRITAIN DISSATISFIED WITH RESULTS OF PREFERENTIAL TARIFF.

The fact that Canada buys much more from the United States than from England is a never-ending source of complaint on the part of British exporters. The Canadian tariff gives a preference of 33⅓ per cent to British products, but that does not stop the increased purchases from the United States.

A correspondent of the Glasgow Herald, writing from Ottawa, says that the tariff preference arrested the decline of British trade with the Dominion, but did not apparently interfere much with the growth of the United States trade. This correspondent gives the imports of iron and steel articles into Canada for the fiscal year 1905 from Great Britain and the United States to show the relative conditions as to trade

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with Canada on the part of those two countries. The figures are as follows:

	From Great Britain.	From United States.
Pig iron	$247,406	$610,315
Bar iron and steel	289,961	565,870
Bridge and structural iron	2,119	717,165
Rolled edge bridge plates	4,199	402,576
Plates and sheets	189,417	712,448
Angles, beams, channels, and like material	240,710	1,244,245
Hoops, bands, scroll, and strips	51,247	127,240
Railway fish and tie plates	18,604	151,823
Nails	4,615	160,708
Tubing	137,879	978,453
Wire	166,664	622,634
Nuts and bolts	7,528	116,084
Tools	47,099	772,470
Machinery	293,384	4,023,425
Gasolene engines	623	198,652
Pumps	3,706	199,877
Butts and hinges	1,341	59,016
Saws	5,473	168,783
Files and rasps	8,472	63,788

THE PROPOSED TARIFF.

The Canadian Parliament, which recently adjourned to reassemble in November, will then take up the tariff question. At least that has been announced as the purpose of the meeting in November. Mr. Fielding, the finance minister, and his colleagues, have been working on the proposed bill, which is said to be in a very forward state. The majority for the Government in Parliament is so large that the passage of a Cabinet measure is regarded as a foregone conclusion. The present surtax on German goods, it is said, will be made less inflexible in order to afford an opportunity for a commercial agreement with Germany. It is also reported that an opening will be made for a reciprocity agreement with the United States. But such an agreement based on the demand made heretofore by Canada, which would exclude manufactures, is regarded as improbable. What Canada will propose is not known. The 33⅓ per cent preferential in favor of British goods which now exists it is thought will be changed, so that the goods to be admitted at preferential rates will be specifically mentioned in the bill. There is a probability that the antidumping clause may be relinquished. Maximum and minimum rates are anticipated, from which maximum-rate concessions will be made to such nations as give preferential treatment to Canadian goods. There is no expectation that the tariff will be revised downward, according to all reports received from authoritative sources.

WILL FEED GREAT BRITAIN.

Senator Perley, a pioneer farmer of the Canadian Northwest, who last year said that within a decade the Dominion would produce sufficient wheat annually to feed all the people of the British isles, now declares at Ottawa that this will be accomplished within the next five years. The size of this task is evident by the statement that the United Kingdom buys yearly about 60,000,000 hundredweight of wheat and 20,000,000 hundredweight of wheat flour. The Canadian statistics show exports of $21,759,823 home-grown wheat and $2,744,153 wheat flour to Great Britain for the nine months ending March 31. The British statistics show much less wheat received from Canada.

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EUROPE.

UNITED KINGDOM.

ACTION BY CHAMBERS OF COMMERCE.

PREFERENTIAL TREATMENT FOR COLONIES—RELIEF MEASURES.

The Congress of Chambers of Commerce of the Empire, which recently met in London, adopted a resolution urging the British Government to give to the various colonies and dependencies preferential treatment in trade, as Canada now does, and asserting that they should act on a reciprocal basis each to the other. The vote by chambers was 105 in favor of the resolution, 41 against it, and 21 neutral.

Some old chambers were among the neutrals. London was one of them; Melbourne and Sydney, in Australia, were two more. Their delegates stated that the question was not a burning one in Australia. The Bengal and Bombay chambers voted against the resolution, while the Madras chamber voted for it. But colonies can enter into a reciprocal arrangement with each other without regard to the opinion of other colonies who do not care to enter into such an arrangement. The Canadian delegates looked after the work of favoring the resolutions, the preferential-trade proposition having been put forward by a Montreal delegate and seconded by one from Ontario. Hamar Greenwood, a member of the British Parliament, spoke against the resolution.

It would seem to be the general opinion that there is no power to carry such a policy into effect in the present British Government, which was chosen by an enormous majority on a free-trade basis. A delegate from the Sydney Chamber of Commerce stated that in Australia opinions of many of the members of the different chambers of commerce are pretty equally divided on the question. It was not a burning question with them, as it was to the Canadian people. They were particularly well satisfied with things as they are at present.

SEEKING FOR CLOSER RELATIONS WITH BRITAIN.

A delegate from the Vancouver Board of Trade proposed a resolution which was carried, urging upon the British Government and upon the governments of the colonies the appointment of an advisory imperial council to consider questions of imperial interest, especially those tending to promote international trade. The resolution was opposed, a delegate from Montreal, speaking as a French Canadian, declaring that such an organization, with power to interfere in any way with the colonies, would be strenuously resisted. Another resolution was carried,

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which declared that it was the duty of the self-governing colonies to participate in the cost of the defense of the Empire, those colonies to decide what should be done themselves. Another resolution adopted urged the British Government to adopt such rates of postage on newspapers and periodicals as would encourage the circulation of British newspapers and periodicals in all parts of the Empire. It was asserted that American papers filled with advertisements flooded Canada, thereby creating a demand for American instead of British goods. A resolution was adopted in favor of better cable and telegraph facilities, and also steamship facilities, for the development and control of trade between the mother country and her possessions and between the colonies themselves.

ASKING RELIEF FROM BRITISH CHARGES.

It was also resolved that the British Government should be urged to send commercial representatives to the British colonies, and also to encourage emigration to such colonies. A resolution was adopted expressing the opinion that the lighting of the coasts of the United Kingdom was an imperial duty, and that the costs should be defrayed out of moneys provided by Parliament, and not, as now, by charges on merchant vessels. Another resolution was adopted recommending the appointment by the Imperial Government of a royal commission to recommend a uniform system of weights, measures, and currency to be adopted throughout the British Empire. Another proposition which received favorable consideration related to education by the introduction of commercial subjects, and the payment of grants to day and evening schools for the efficient teaching of commercial subjects equal to the grants now paid to those schools for special courses in science.

CHEESE AND BUTTER.

FAILING FOREIGN MARKET THAT MIGHT BE REGAINED.

Consul W. C. Hamm, at Hull, says that the figures for the importations of cheese during the past six years show an almost steady fall in the amount imported into Great Britain from the United States and a corresponding increase in the amount imported from Canada. The following are the figures:

United States.	Quantity.	Value.	Canada.	Quantity.	Value.
Year:	*Cwt.*		Year:	*Cwt.*	
1900	680,583	$3,703,745	1900	1,511,872	$18,996,015
1901	540,102	6,370,305	1901	1,547,739	18,488,300
1902	390,479	4,610,560	1902	1,709,565	4,509,295
1903	360,916	4,766,075	1903	1,848,142	24,115,450
1904	224,830	2,516,560	1904	1,900,556	21,173,950
1905	175,256	2,225,015	1905	1,858,767	24,020,860

Holland exports to England about the same quantity of cheese as the United States, and France half as much. The falling off in the amount of cheese from the United States is not wholly due to the lessening quantity actually manufactured in that country and exported to England. In part it shows that some cheese which formerly came from Canada by way of the United States is now imported direct from

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Canada itself. But allowing for this change, there has undoubtedly been a decrease in the amount of cheese manufactured in the United States and imported into the United Kingdom.

At one time the farmers in the United States practically controlled the cheese market here. One of the reasons why they have not retained that control is, it is claimed, adulteration. These adulterations, it is asserted, were carried so far that the reputation of United States cheese was greatly injured. The Canadian farmers saw their opportunity in the alleged mistake of the United States cheese manufacturers, and by introducing cheese of superior quality they were able to take away much of the market which was once filled from the United States.

Cheese is a very important article of diet in England, but the people demand a good quality. It is probable that if the American farmers will manufacture and furnish the desired quality steadily without adulteration they may recover some of the lost markets. They will need, however, to supply a first-class article. Cheese retails at Hull at from 14 cents to 18 cents per pound, the imports in 1905 being $311,880. There are a number of wholesale houses in Hull which handle cheese, and it might be of advantage to American exporters of cheese to correspond with some of them. [The addresses of the principal ones are on file at the Bureau of Manufactures, and will be furnished to applicants.]

MARKET IN WALES.

DEMAND EXCEEDS SUPPLY—AMERICAN MAKE IN FAVOR.

Consul D. W. Williams writes from Cardiff that cheese has been a favorite article of food in Wales from the early nomadic period, and the demand for it continues unabated.

In former times the demand was so great that the milk of sheep, as well as cows and goats, was utilized for this purpose. Even to-day many farmers make cheeses in part of the milk of sheep, and there are several brands which have a local reputation. The most famous Welsh cheese is the Caerphilly brand, but the demand for cheese is so much greater than the supply that cheese made in England, and even certain Holland brands, are sold here for the Welsh article. There is a good sale also for Cheddar cheese, which is made in Somerset, on the south side of the Bristol Channel. But there is a fine opening for American cheese, because it can ordinarily undersell all local and other foreign products. The Americans now sold here are liked and sell readily, the usual retail price being about 14 cents a pound. At that price Americans can win and hold the market, and any reduction in price will give them an additional advantage. [The consul furnishes the names of two wholesale grocers of London and six wholesale grocers of Cardiff, all of whom handle cheese. The addresses can be secured from the Bureau of Manufactures.]

BLENDED PRODUCTS.

RARITY OF THE DAIRY PRODUCT—ADULTERATION TO BE STOPPED.

The British Government has recently issued as a Parliamentary paper a report of the select committee appointed to consider the conduct and control of the trade in butter and butter substitutes. The

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report was agreed upon unanimously, and makes suggestions to be embodied in legislation.

The London Times asserts that genuine dairy butter is a thing past praying for. Four-fifths of the population of London, the Times asserts, have never seen it in their lives. Those who know what it is have great difficulty in procuring it, and can not obtain it in many cases at any price. What is called genuine butter in London, the Times says, is blended and reworked butter. Its tough, tenacious texture is as different as possible from that of real dairy butter, and it is destitute of the subtle aroma of the genuine unworked butter. The Times says that both the imported butter and that made at home is generally blended butter. The Parliamentary committee propose that butter factories shall be registered, the registration to be renewable annually, and that inspectors shall be empowered to enter all such premises when they suspect that butter is reworked, blended, or adulterated. Adulterated butter must not be stored on such premises. With adequate penalties proportioned, as the committee proposes, to the magnitude of the output, some real check would be placed upon adulteration. Imported butter is to be met with not less stringent conditions.

It was shown before the committee by a firm that was prosecuted for the sale of adulterated Danish butter that they got off with a nominal penalty upon showing that they had ordered what is known as "control butter." This butter is guaranteed by the Danish Government. The committee propose that the importer shall be held responsible for the genuineness of the butter he sells without any regard for anybody else's warranty. No difficulty is put in the way of those who manufacture and sell imitations of butter openly and honestly. Those who want margarine will be free to buy it as such. But people who want butter and pay for butter are expected to get butter, and not mysterious mixtures. It is thought probable that the British Government will take favorable action on the report.

DUST LAYING.

CRUDE TEXAS OIL GIVES LASTING RESULTS.

Consul John L. Griffith writes from Liverpool that the rapidly increasing use of motor cars in England has directed a great deal of attention to the best means of laying the dust which these cars raise.

It is recognized by the highest medical authorities that disease germs are widely scattered by the dust clouds which motor cars place in motion, and that the dust thus circulated is one of the causes of consumption and diseases of the throat and lungs. Merchants' stocks are also damaged. Many protests and demands for relief have been made. A motor commission has held meetings in London, and it is expected that their report will contain comprehensive suggestions upon the use of motor cars, and the convenience, health, and safety of all who use the highways. Dust raising is a nuisance of such magnitude that various civic and official antidust experiments have been made, some in this consular district. While the problem has not fully been solved, the result of some of these experiments may prove of

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value to public authorities in America who are confronted with the same situation.

There has been a great deal of discussion in England as to who should defray the expense of keeping the highways in sanitary condition, and it is strongly urged that a considerable portion of the expense should be borne by those who necessitate the outlay.

THE OIL EXPERIMENTS.

Quite satisfactory results have been secured in Liverpool through the use of oil sprinkled upon macadam roadways. The surface having the cleanest and whitest appearance was that coated with creosote oil mixed with rosin, while that covered with creosote oil mixed with tallow had the least odor. The surface covered with ordinary petroleum was the first to show the dust. The next in order was a mixture of creosote oil with rosin and tallow, and then the hot creosote oil alone. Creosote oil mixed with pitch, cold creosote oil, and hot creosote oil mixed with a small quantity of pitch gave good results, but the latter gave a bad appearance. The heavy black oil (coal-tar waste oil) lasted slightly longer than the creosote oil and was much cheaper. The Texas crude petroleum gave the most lasting results, and portions of the road heavily coated with this oil showed a somewhat glazed surface formed of oil and dust.

From the standpoint of the wear and tear of the road surface, the oiling on the whole has proved advantageous; the wear appears to be less; the surface of the road dries more quickly after rain; and the number of loose stones picked up has been reduced. The first sprinkling kept the surface in good order for three weeks, at the end of which time it was thought advisable to recover the area. The good effects of the oil on the surface after a second coating had been applied had not entirely disappeared after the lapse of five weeks. The cost varied from one-half cent to one cent per superficial yard. Some complaint was made as to the smell of the oil, especially the creosote, but against this it was claimed that as long as the smell remained flies practically disappeared from premises adjoining the roads. Oiling wood pavements in Liverpool was done in the same manner and the dust satisfactorily kept down, a result previously not obtained even by watering four times a day, and the surface of the road was maintained in good condition during dry weather without gravel. It became somewhat slippery during a rainfall, and to avoid this it was found necessary to sprinkle a little gravel on the roadway.

SUCCESS WITH CALCIUM CHLORIDE.

The district council of Norwich has also been experimenting with the dust-laying problem, sprinkling with a calcium-chloride solution. This is made by dissolving one hundredweight of calcium chloride in 100 gallons of water. The chloride is sold at $7.29 per ton at the chemical works. The experiment was tried for fourteen days over three lengths of main road. The first cost only $4.44, as against $9.73 with water, which has to be applied daily; the second $8.89, against $20.33; and the third $8.83, against $40.55. The liquid appeared to change the gravity of the dust particles, preventing them from being

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blown about either by wind or motor cars. The roadway seemed to be bound, and in dry weather had a good surface. The liquid absorbed the moisture, and each night an amount of moisture was gained, which prolonged the effect of the treatment. This reviving influence was apparent for fully three weeks after the expiration of the treatment. During wet weather there was a tendency for the surface to work off in layers, but it quickly dried and set hard. The conditions vary so greatly it is preferable, perhaps, that the method of application should be determined by experiments in each particular district, but the result of the treatment of roads in Norwich has been most satisfactory to the surveyor of the council.

CHICKEN TONIC.

NO FORMULA REQUIRED ON IMPORTS.

Vice Consul-General Richard Westacott responds from London to a Philadelphia inquiry asking if there is any law in Great Britain requiring the formula to be printed upon the packages of American poultry foods and stating that they had been informed that patent medicines for humans must have the formula on the wrappers and labels, but that they did not know whether this restriction extended to remedies for live stock and poultry. The consulate-general referred the matter to the British customs authorities, who state they are "not aware of any enactment at present in operation requiring the formula to be shown on packages of foreign medicines at the time of importation into any part of the United Kingdom for use in connection with live stock and poultry."

OIL-REFINING IMPROVEMENT.

NEW BRITISH PROCESS SIMPLIFIES OPERATIONS REQUIRED.

Consul Rufus Fleming, of Edinburgh, further describes the new Macalpine process of refining oils, for which a British patent has just been granted:

The objects of this invention are stated to be (1) to cheapen the process of refining mineral and petroleum oils by simplifying and shortening the operations required and lessening the amount of waste products; (2) to improve the color of the oil, and (3) to lessen its liability to char the wick and explode when used as a burning oil.

There are three stages in the new process. First, neutralizing any acid which may be in the oil under treatment by mixing with the oil an alkaline solution prepared by dissolving 1 pound of carbonate of soda in 10 pounds of water, and using about 1 pound of the solution to every 20 pounds of oil, and agitating the whole for half an hour, afterward subjecting such oil to a preliminary distillation; second, taking such distillate, or oil not requiring such acid neutralization and preliminary distillation, and treating it with an excess of weak sulphuric acid in order to precipitate the substances in the oil, which can not remain in solution in presence of this acid, and thus render the remaining impurities susceptible of easy oxidation; and third, treating the oil so prepared with weak sulphuric acid in presence of suitable oxidizing agents, and then preferably rapidly boiling the same.

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In carrying out the second part of their invention the patentees mix into the oil 5 per cent by weight of sulphuric acid, say about 1.72 specific gravity, maintaining the whole at a temperature of about 40° C., with intermittent agitation for about half an hour, after which the oil is allowed to settle for four or five hours and then drawn off from the tars, when it is fit for the last treatment. This consists in passing the oil into a suitable boiling vessel having an inverted condenser attached and adding to the oil the oxidizing agent, such as the oxides or hydrates of manganese, preferably finely ground black oxide of manganese ore, in proportion about 5 per cent of the oxidizing agent to the weight of the oil and 10 per cent of weak sulphuric acid of a specific gravity not exceeding 1.2. After the reaction has ceased the solution of sulphate of manganese together with any excess of sulphuric acid which may be present are allowed to settle, after which the oil is drawn off and after the usual treatment with acid and alkali is distilled in the usual way.

In regard to the failure of previous attempts to refine mineral oil by means of the combined use of sulphuric acid of usual commercial strength and oxidizing agents Doctor Macalpine says that in his opinion such want of success has been due to the fact that the acid used was of a strength sufficient to disintegrate the oil and dissolve the manganese and result in an oxidization of too vigorous a character. It is claimed for this invention that it obviates these disadvantages by the use of an acid so weak as to have no action upon the oil and which does not act upon the oxidant itself except by the interposition of the impurities in the oil.

WELSH CEREAL IMPORTS.

GROWING PURCHASES OF FOOD SUPPLIES.

Consul D. W. Williams states that the import trade of Cardiff is improving rapidly, and much of the increase is due to the growing demand for food products.

The demand of a great mining district can not be supplied by native products, and the Continent, Australia, Canada, and Argentina are competing for the trade. Unfortunately for the United States, only one line of steamships, the Lord Line, connecting Baltimore and Cardiff, bring in food products directly, and when they are shipped via other ports the freight charges give an advantage to other countries. The imports of wheat and flour are growing steadily, the value having increased from about $3,840,000 in 1901 to $8,760,000 in 1905. By shipping through Baltimore the American producers might win a large share of the increase, but it is evident that other steamship lines must be established to give the United States products an equal opportunity with Australia and Argentina. [The names of the principal importers of wheat products at Cardiff can be obtained from the Bureau of Manufactures.]

TRAFFIC AT MALTA.

IMPORTS AND EXPORTS OF ISLAND ANNOUNCED.

Consul John H. Grout forwards from Valetta a summary of the annual report of the collector of customs of Malta for the financial year 1905-1906.

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A synopsis shows the gross revenue for the year to have been $1,380,922, an increase of $11,600 over the previous year. The principal increases were on wheat, flour, wine, spirits, petroleum, sugar, and oil. The increased importation of many articles subject to duty seems to show that there was a brisk internal trade during the year. There was an increase of $7,062 in the duty collected on wheat and $2,071 on flour, and a decrease on barley, corn, and malt. Very large quantities of cheap wines were imported during the year. A decrease in the importation of live cattle and frozen meat was principally due to the fleet being absent from Malta. The deficit amounted to £6,806. Imports of petroleum showed a large increase over the previous year, the amount being given as $8,121 in excess.

The value of the principal imports from the United Kingdom were as follows: Beer, $432,126; spirits, $78,195; manufactured grain, $199,449; superior wines, $21,413; cotton-seed oil, $13,602; sugar, $47,254; potatoes, $24,879; tobacco, $163,208. Frozen beef and mutton were imported from British colonies to the value of $109,827. The following shows the articles and their value as contributed by foreign countries: Beer, $11,625; cotton-seed oil, $81,908; potatoes, $43,147; pulse, $388,045; seeds, $175,987; spirits, $56,841; live animals, $932,703; wheat, $1,111,124; wine, $699,588; barley, $68,595; petroleum, $267,015; saggina, $29,553; sugar, $527,217; manufactured grain, $217,226; tobacco, $165,885; and olive oil, $188,436. Exports of local produce consisted principally of vegetables, fruits, and stone. Malta stone to the extent of 50,047 slabs, 529 blocks, and 450 tons were exported to Italy, Greece, Turkey, Egypt, Tunis, Belgium, and Barbary. During the year the local fisheries were of normal prosperity. Fish was also imported in large quantities from Sicily and Tunis.

PROCEDURE AND EXPENSE FOR SECURING PATENTS.

Requests from parties in the United States for information leads Consul Grout to furnish the patent laws of Malta, of which the following is a summary:

The exclusive right of manufacturing or using for purposes of gain any mechanical contrivance, process of manufacture, pattern, or design is given for a term not exceeding fourteen years. The applicant must file in the office of the chief secretary two copies of a first specification of his invention, containing a declaration that he is the true and first inventor or the authorized agent, a description of the nature of the invention, illustrating the same with necessary drawings, also the particular inventions or combinations therein which are claimed by the applicant as new and for which he asks such patent.

Patents shall cease whenever it is proven before the civil court that the invention claimed had been previously made publicly known in Malta, or that the person claiming the patent is not the first inventor or his representative. An inventor may be required to assign his right or grant the use thereof, for a consideration to be determined by the civil court, if the invention or modification to which the patent refers shall not have been put into use within twelve months, or if its working shall have been suspended for twelve months continuously.

On filing the first specification request may be made that the patent be not published, and the inventor may within a year file a second

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amended specification, modifying the first and setting out improvements of details, without altering its nature and without adding to the original claims. Priority in granting patents will be given British subjects or to any person who has, within the previous seven months, applied for patents in any foreign state with which the British Government has an arrangement for the mutual protection of patents. Such patents shall have the same date of the application in British or foreign states.

The schedule of fees is £1 ($4.87) on filing application for patent, £2 on publication of grant, and annual fees of £4 before the fourth year from the date of the patent, £5 per year during the next three years, £7 10s. per year for two years, and £10 yearly for the remaining period. [Further details of the patent-law requirements can be learned by consulting Mr. Grout's complete report at the Bureau of Manufactures.]

GERMANY.

FURNITURE IN SAXONY.

AMERICAN ARTICLES COULD BE INTRODUCED.

Consul Carl Bailey Hurst, writing from Plauen, tells of the opportunity to dispose of American furniture specialties in Saxony. He says:

The opportunity for introducing American furniture into Germany has been repeatedly mentioned. It may be emphasized for Saxony, where there is a good chance for successful trade if the market is properly entered. Scarcely any of the many furniture stores carry a single article of American manufacture. This is a regrettable state of affairs, because local furniture men themselves concede the ability of the American manufacturer to compete in the German market in a number of articles if due attention be paid to existing conditions. It is almost impossible to do any business in this line directly between seller here and the exporter in the United States, particularly through the medium of catalogues and lists in English. Besides, close personal study must be made of the furniture in use here, some of which is not seen in America. Several articles, such as dining-room furniture, ladies' desks, rocking chairs, and small tables, can be introduced, which, with proper exploitation, are sure of prompt disposal. Wooden bedsteads are in general use, but those of iron and brass, which are known as reform beds, are making headway slowly. An attractive American bed, with white enamel finish and brass ornamentation, is seldom seen, but ought to find favor on its own merits. Rocking chairs are coming more into use.

THE CUSTOM TO HAVE SUITES OF THE SAME STYLE.

It is largely the custom here to sell furniture in suites, such as for dining room, salon, smoking room, and even sets of kitchen furniture in all grades of price and style figure in the dealers' stock. Some of these various sets are peculiar, and competition with the German manufacture would not be profitable except by imitating the prevail-

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ing styles. Fine furniture here is extremely expensive, and prices for such pieces as may be duplicated in the United States are considerably less there, even 20 per cent and under. As yet American furniture is chiefly known abroad in the way of office desks, and of late the German manufacturers have made a copy of American originals, modified in certain particulars, so that where the American desk was the pioneer and clearly demonstrated its utility, the German desk, more vigorously pushed, is now reaping the benefit of American ingenuity and enterprise. One important alteration is in making the tops of the desks somewhat lower, with the roller coming out straighter and farther forward and dropping at a sharper angle. The inside partitions have been rearranged to admit of the use of the different sizes of Continental stationery which, while a small enough matter in itself, makes the difference between convenience and daily annoyance to the foreign user, and not infrequently defeats the sale of the otherwise superior American desk. It would not be amiss for an American manufacturer who looks to this valuable market to study the modified type of a desk that he himself may have manufactured ten or fifteen years ago.

A FEW AMERICAN DESKS.

Some American desks are on sale in the larger Saxon cities, but the prices are high, and they are often considered rather as exotic luxuries, while the domestic article is generally recommended. The greatest difficulty of all is the absence of an American agency with a comprehensive line of medium-priced substantial stock, adapted to local use in the arrangement of pigeonholes and drawers and other readily made changes. Filing cabinets offered for sale should be adapted to local needs. The finish of office desks is also taken into strict consideration, as the products here are not highly varnished, having generally a wax finish. While the ocean transportation is a serious factor the German duties, even under the new tariff, are not insuperable. In accordance with the provisional customs arrangement with Germany, American furniture now pays per 100 kilograms, 220.46 pounds, as follows: Furniture and parts, neither upholstered, veneered, nor polished, soft wood, rough, 4.50 marks ($1.07); the same, finished, 10 marks ($2.38); furniture of hard wood, rough, 10 marks ($2.38); the same, finished, 12 marks ($2.86); veneered furniture, the veneering not to exceed 2½ millimeters in thickness, rough, 10 marks ($2.38); the same, finished, 15 marks ($3.57); fine-grade furniture, upholstered, from 24 to 50 marks ($5.71 to $11.90).

HOUSEHOLD FURNITURE MIGHT BE SOLD.

There is even a wider field, as yet uncanvassed, for the sale of certain lines of household furniture. Probably dining-room furniture would take a first place. The different grades of tasteful sideboards that are made of oak in many styles in the United States, and at very reasonable prices, ought to find a steady market here. Dining-room tables and chairs could also be supplied. The place of closets is generally compensated for by the use of wardrobes, which are in all grades, and not infrequently have a mirror set in a door panel. They range in price from the equivalent of $4 to $100 and more. One of the most widely sold articles in the local furniture trade is the ubiquitous sofa

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or divan, generally plush, surrounded by a monumental wooden framework. It is often more expensive than any other piece of furniture in the room and is combined with a mantelpiece adapted to the display of bric-a-brac. There is a remarkable number of designs, and no household is complete without this elaborately ornamental adjunct to home comfort. It might be well to add that dark tones are preferred in oak, mahogany, ebony, walnut, or in their imitations. The tendency is to have one style of furniture in the room. The custom of having different pieces and the fitting up of dens with odd bits of interesting furniture, is not generally in vogue. There is a leaning to conservatism that is recognized and followed by furniture manufacturers. For instance, the middle-class conventional parlor set is usually a sofa and surrounding frame, two armchairs, two chairs, an étagère, and a table, and all are strictly in the same style. Not infrequently the design of the rug is in harmony with the uniform upholstery of the furniture.

HEAVY DINING-ROOM SUITES.

In the dining-room suites the sideboards are often of vast size and very finely constructed. The table, chairs, buffet, and china closets are always in the same design. The prevailing styles are Old German, Renaissance or New Art, occasionally Flemish, Biedermeier, and one or two of the later French classic styles, notably a modified Empire. Some of these pieces, when handmade and not veneered, are massively constructed, and thus calculated to wear a lifetime. Judging by the unimpaired survivals of former honestly made work still to be found, they are likely to outlast several generations. The smoking rooms have moquette, leather, or imitation leather divan, with its accompanying framework, table, and chairs, tall bookcase with half-glass doors, and writing desk, all in the same pattern.

Another article that should find ready sale here is the lady's writing desk. This could go by itself without necessarily following the style of the rest of the furniture in the room. There are many beautiful patterns in the American market, so that with a fair line of samples here it would not be difficult to discover what styles would best take in this locality. An American writing desk of this kind would be a very acceptable addition to any household, and it is a wonder that they are not already in evidence. Those manufactured here, except when included in salon suites, are usually of dark walnut veneer, rectangular and heavy, and really devoid of artistic appearance. Such a piece retails at about $15 and upward. I am convinced that if only this one line were to be taken up by an American manufacturer, he would find an excellent market.

TOBACCO WITHOUT NICOTINE.

NEW CLASS OF CIGARS FINDING FAVOR IN EMPIRE.

Mr. Hurst also reports that in spite of the fact that German cigars as a whole are light in comparison with those of other countries there has been considerable local agitation as to the harmful effects of smoking and of over-smoking in particular.

Although the use of the weed has in nowise diminished thereby, some factories are now producing cigars known as "free of nicotine"

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and "poor in nicotine," which are gaining in popular estimation. It has come to notice, however, that certain makes of these cigars are advertised as free from this poison, but contain in reality from 0.38 to 0.9 per cent of nicotine, while ordinary cigarette tobacco varies between 0.3 and 0.4 per cent. Thus there is little difference between some of the tobacco from which the nicotine is supposed to have been extracted and that which has not been treated. An effort is now being made in Saxony to fix the maximum that a cigar "poor in nicotine" may contain in order to be sold as such and the tobacco of the cigar claimed as "free" must in reality be so cured that a chemical analysis will be unable to reveal the presence of nicotine.

EXPERIMENTATION SUGGESTED.

Some of our American manufacturers, although acquainted with the German "nicotine-free" and "nicotine-poor" cigars, as the labels literally run, may now find it of advantage to experiment fully along this line, in view of the recent increase in the production of these varieties in a great tobacco-consuming country. It is not impossible that a brand of cigars deprived of a portion of the original nicotine might find favor with a part of the American smoking public. That the innovation does not lessen the demand for tobaccos of usual strength is evidenced by the growing output of the old-fashioned sorts in the German factories. It is held as immaterial whether the new product can be classed as pure tobacco. There is no question of adulteration or deceptive elimination with a view to cheapening the product. Whether the specially treated tobacco will have a markedly more beneficial effect on the system must remain undetermined for the present, but as a commercial proposition the new cigar appears to have a favorable chance, for it is well on the market and seems likely to remain there.

LABELING MACHINES.

GOOD SALES OPENING—AMERICAN MAKES ARRIVE BROKEN.

Consul Brittain writes that if some of the American manufacturers who contemplate building up foreign trade were to consult American manufacturers who have been successful, they would doubtless learn some useful lessons. The consul gives a case in point:

They should adopt the methods of the successful companies in at least three particulars: First, methods employed in making sales; second, term of sales; third, method of packing merchandise. Recently a Strassburg gentleman, interested in the sale of machinery, asked whether I could place him in communication with American firms dealing in bottle-labeling machines.

I gave him a number of addresses, and after six months' correspondence he ordered machines from a house which advertises in American magazines soliciting foreign trade. This firm declined to do business. He ordered two machines from another manufacturer, and when the machines arrived a large thumbscrew, which holds the bottles in position, was broken. I was asked to examine these machines and am convinced the break was the result of improper packing. The feet of these heavy machines were fastened with ordinary wood screws to a

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strip of three-fourths inch pine lumber constituting the crate of the same material. The lumber was not heavy enough to support a light sewing machine. The arms of the machines were not properly protected or secured. In fact the machines were no better packed than they should have been in making a journey from a warehouse to the depot.

The result was the buyer in Strassburg was obliged to spend a day's time searching for a place where he could have a new screw made, and to wait five days until it was finished. With the machines the American manufacturer sent about fifteen type-written pages of instructions and a lot of other printed matter telling how to operate them, all printed in English. He also sent two buckets of paste, which appeared to be old, as it was lumpy and hard; consequently it would not flow freely when the paste cups passed over the labels. Under such circumstances the feelings of the German buyer 5,500 miles from the American seller may be better imagined than described.

A few days later the same gentleman received two labeling machines from another American firm. One of these came to Strassburg and the other to a city in another part of Germany.

The one consigned to Strassburg was broken when the buyer received it, and shortly afterwards a message came saying the other machine was similarly broken. Such machines should be packed in strong closed boxes, with all fragile parts removed and securely packed. When American machines arrive their condition should not necessitate an apology to the customer.

In Germany there is a good opening for American labeling machines, in consequence of the immense amount of beer, wines, and mineral water bottled here. In the past the labeling has been done largely by hand. During the last week in September there will be an exhibition of brewers' supplies held in Berlin, which American manufacturers would do well to attend.

COOPERATIVE STORES.

LARGE PURCHASING POWER—INTERNATIONAL COMBINATION PLANS.

Consul-General Richard Guenther reports from Frankfort that the annual meeting of the association of German cooperative stores was recently held at Stettin, and that representatives of similar national organizations were in attendance as guests from Belgium, Holland, England, Denmark, Austria, and Switzerland.

The discussions and reports at this convention were very instructive. The system of forming associations for supplying the members with articles of food, household goods, and other articles of use, thus dispensing with middlemen, agents, and retail storekeepers, all of whom derive a profit at the expense of the consumer, is highly developed in Germany, Great Britain, Denmark, and Austria. There are in Germany 2,508 of these cooperative stores societies, having a membership of over 1,200,000. The value of goods sold by them increased from 147,000,000 marks (mark=23.8 cents) in 1903 to 230,000,000 in 1905. The profits realized (which accrue to the benefit of the members) were 12,000,000 and 18,000,000 marks, respectively, for the years mentioned.

Many of these various retail cooperative stores have their wholesale purchasing companies which supply them at original cost; they are

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thereby enabled to secure lowest wholesale prices. The wholesale purchasing companies make contracts with agricultural societies for the delivery of food and dairy products in large quantities. They have also engaged in producing and manufacturing some of the goods which they handle. There are 33 of these German wholesale purchasing companies for the cooperative stores, disposing of 120,000,000 marks worth of goods per annum, the principal one alone selling to the amount of 40,000,000 marks.

At this convention it was proposed to join with the cooperative stores associations of the other countries in forming an "International Cooperative Association" for the purchase and distribution of articles of consumption. It is very likely that such a union will be formed. Our American producers will do well to give these cooperative stores in Europe, which are large and safe customers, their careful attention.

AMERICAN SHIRTS.

THE KIND THAT WILL SELL IN CHEMNITZ.

Consul E. L. Harris reports that a resident agent in Chemnitz of an American firm received a trial shipment of American shirts which were delivered in such a way as to give rise to the belief that the shippers cared nothing for the German trade.

The orders were placed in February, and the shirts arrived at the end of June. The shirts were fine and of good workmanship, but they did not fit, and out of the trial shipments of 6 dozen 3 dozen were returned. It has been said that there is a market for American shirts in Germany. This may be true, but if American manufacturers are to secure it the greatest attention must be paid to details—that is, prompt delivery and above all see that they fit. The shirt which opens all the way down in front like a waistcoat does not seem to find much favor in Germany. Shirts with cuffs attached seem to be coming more into use here. Some are being exhibited in a shop window with attached collars. A colored shirt of this description costs about $3 retail. An American shirt can be placed on the market, after duty is paid, for a much less sum than this. American dealers, however, who wish to enter this field should avoid using the German market as a place for dumping job lots, for the reason that such an irregular practice not only fails but brings American goods and export methods into ill repute generally.

GRADING GRAIN.

COMPLAINT OF AMERICAN SHIPMENTS.

The Association of Rhenish and Westphalian Grain Importers recently issued a circular complaining of alleged incorrect classification of American grain. The circular says that the grain trade of Europe has complained for years about the improper certifying of American wheat, corn, and oats, which has involved losses of millions of dollars to importers. Thousands of cases of such alleged improper certifying, the circular asserts, are vouched for by sealed samples of grain and the original certificates where wheat with a large percentage of the

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old harvest was certificated as new, and where mixed corn, certificated as A1 grade, arrived at the port of destination totally ruined after ten days' voyage. It is further charged in the circular that for some months American oats, certificated as white clipped, has contained a mixture of 30 per cent of barley. The association asked the importers in the international grain trade to make suggestions for a line of common action to remove the evils complained of. An international conference is proposed to protect the trade against further losses.

BELGIUM.

VARIED LABORS OF CONSULS.

DEMANDS OF INQUIRERS—VALUE OF PERSONAL REPRESENTATIVES.

Consul McNally, of Liege, writes, in regard to the variety and frequency of demands for commercial information received by consular officers, and relates experiences that will interest business men. The consul says:

By no means the least of a consul's duties is to reply to inquiries from American trades people and manufacturers. These inquries are numerous and varied in their demands. These demands upon a consul's intelligence are not confined solely to interrogatories touching things commercial or industrial, but are sometimes in the nature of a scientific or technical demand that taxes the ingenuity of the officer to reply in anything like an intelligent manner. After explaining the merits and details of their product some inquirers will ask as to the possibility of their entering into foreign trade with satisfactory financial results, and request to put them in touch with a reliable firm or business man of sound financial standing. The first will tax the judgment of any consul, while the latter, even though the consular regulations prohibit the consul passing upon the financial standing of a person or firm, would be entirely beyond his knowledge.

PRESENCE OF PERSONAL AGENTS NEEDED.

The other inquiries are more or less in the nature of the introduction of goods into foreign markets, or the importation into the United States of goods of foreign manufacture. While the matter of a general correspondence might elicit some information, the consummation of a business connection or an expert opinion upon the quality of manufactured articles could hardly be expected from a consul. Where one is interested in either of the above propositions it would considerably facilitate matters if a capable representative would visit the prospective market and personally examine the trade demands and look up a proper local representative. If the purpose was to buy articles of special manufacture, the person could visit the factory and in a glance take in the system of manufacture and get a knowledge of the material that a correspondence could never impart.

LESSONS OF EXPERIENCE.

A few days ago a representative of a firearm manufactory in New York called at the consulate for certain information, which, happily,

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I had on hand. He informed me that he had been in correspondence with a dealer in gun barrels for six months past urging immediate delivery; that by reason of the nondelivery his firm had lost over $5,000. On the information that I gave him, made valuable by his being on the ground, he was enabled to have his order booked and sent on within twenty-four hours. He informed me that the success of his visit to Liege was worth more than twenty times the expense and time consumed, and that for the future the knowledge he gained would be invaluable.

About two years ago a gentleman connected with one of the largest firearm institutions in the United States visited the consulate and informed me that in passing through to London he stopped off between trains to visit a man from whom his firm had imported. He evidently knew little of Liege or its special industry, which was in his line. After a short conversation he concluded to remain over for a few days, and finally left saying that his visit to Liege and the knowledge gained of the firearm manufacture would always be of incalculable value to him.

AMERICAN RELATIONS.

CLOSER TRADE CONNECTIONS AND COMMERCIAL DEPOTS PROPOSED.

Consul-General George W. Roosevelt, in a letter from Brussels, says that when opportunity has offered he has advanced the opinion that successfully to increase American trade relations with foreign countries no better method could be adopted by exporters than by establishing depots in the principal foreign centers—such as Paris, London, Brussels, and Vienna—in Europe, under the supervision of expert salesmen, familiar with the language and requirements of the country, for the sale and display of American manufactures. Mr. Roosevelt continues:

The Belgian Federation of Contractors of Civil and Public Work, in a recent meeting discussed at length the feasibility of establishing a depot in the United States, presumably at San Francisco, for the purpose of extending trade relations between Belgium and the United States, principally San Francisco, in such articles as cement, paving and enameled tiles, linoleum, steel and iron beams, rails for street railways and mines, water pipes, marble, mirror and plate glass, refractory products for mines, steel for tools, leather belting, brass and iron wire, oil paints, linen, surgical and orthopedic instruments, porcelain, faience, fancy leather articles, terra cotta, Brussels carpets, etc. The federation decided to at once send a delegate to San Francisco to study the advisability of establishing there a depot for the sale and exhibition of the above-named merchandise.

Mr. Francotte, minister of industry and work, has notified the association that, in view of the special circumstances and occasion, he will do all that is necessary toward obtaining from the Government of the United States a reduction of duty on merchandise destined for San Francisco. A commission consisting of 14 members has been appointed by the above-named federation for the purpose of bringing the proposed project to a successful termination. Each one of these commissioners represents a special line of trade.

[Their names can be obtained from the Bureau of Manufactures.]

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FOOD INSPECTION.

STRICT REGULATIONS COVERING FOOD AND WATER.

Mr. Roosevelt also writes that the Belgian Government annually expends the sum of $28,950 for inspection and analyses of samples of all classes of food. His letter reads:

The service for inspection of food organized by the Belgian Government is cited as an example in all international congresses of hygiene. All rules and regulations are submitted to the superior council of hygiene for discussion, examination, and approbation. On account of the ease in falsifying butter, particular watch is kept on this article of food, the alteration of which is the most frequent and the most difficult to prove. As the majority of butter producers in this country are small farmers the Government exerts the best efforts to protect them. The application of the law concerning the sale and use of saccharine in Belgium is also rigidly enforced.

PRESERVED MEAT INSPECTION.

The Belgian minister of war has recently transmitted to corps commanders a list of questions concerning the use of preserved meats in the army. They chiefly concern the length of time allowed to elapse after receptacles containing preserved meats have been opened before the consumption of contents, and places where they are kept after having been opened and prior to consumption. The war department is vigilant about the frequent renewal of stock of preserved meats, nearly all of which comes from the extensive establishments at Antwerp, and, although recognized as of excellent quality, the soldiers do not conceal the fact that they prefer fresh meat to what they style the "Plata ration."

The inspection of imported preserved meat, nearly all of which comes from South America, is practiced at Antwerp. All receptacles showing the slightest deterioration or dent are at once verified. Two or three cans or boxes out of nearly every hundred are opened and contents tested. Seventeen veterinary inspectors and 600 experts perform this work. The experts are either engineers or chemists who have made special studies and received special diplomas. The superior council of hygiene issues a monthly pamphlet, which contains, as an annex, legislation on the inspection and surveillance of food by the various foreign governments.

WATER-SUPPLY STATISTICS.

The Government recently detailed an officer connected with the sanitary service to investigate and report on the water supply in each commune of the Kingdom. The replies to questions received from the administration of each commune are collected in a large volume, forming a statistical work of great usefulness. Hereafter when a commune requests the advice or opinion of the sanitary service concerning the distribution of a water supply, an estimate can be determined by reference to the collected statistics without loss of time.

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HORSE BREEDING.

MUCH HIGHER PRICES AND ANIMALS HARD TO SECURE.

Mr. Roosevelt reports further that during the past few years horse breeding has become one of the most lucrative resources of farmers in the Belgian Province of Brabant.

The year 1905 was especially noticeable for the great activity in the sale of breeding animals, especially animals 4 and 5 years old, which readily sold at exceptionally high prices. A good draft gelding brings from 1,800 to 2,500 francs ($347.40 to $482.50). Full-grown animals are rare, and horse dealers find considerable difficulty in procuring horses 4 and 5 years old.

Animals for breeding purposes have greatly increased in value, and even young colts just weaned easily bring from 1,000 to 1,500 francs ($193 to $289), as much if not more than was formerly paid for a full-grown stallion. Stallions of good pedigree and form now bring fancy prices, 20,000 to 30,000 francs ($3,860 to $5,790) being now as easily obtained and not considered more exaggerated than the 2,000 or 3,000 francs ($386 or $579) paid for similar animals some fifteen years ago.

Naturally the very considerable increase in value of animals for breeding purposes returned excellent profits to breeders. During the past year a large number of stallions were sold, among which were some remarkable specimens. Germany continues to be the leading buyer of Belgian horses. German buyers confine their purchases to high grade and high priced animals. Since the St. Louis Exposition American horse dealers have bought a large number of fine stallions. It is generally recognized here that American buyers are more attracted by the size and weight than by the beauty and form of the animal.

FRANCE.

INSURANCE CONTROL.

NEW REGULATIONS RESTRICT INVESTMENTS OF LIFE COMPANIES.

In pursuance of the act of March 17, 1905, relative to the supervision and control of life insurance companies doing business in France, the definition and class of securities in which all such companies, both domestic and foreign, shall be authorized to invest their funds have been regulated by a decree issued on June 9 by the French Government. Reports thereon are made by Consul-General R. P. Skinner, of Marseille, and A. E. Ingram, vice consul-general in charge, at Paris of which the following is a summary:

Investments up to any amount are permitted in French Government funds; up to 10 per cent in French provincial or municipal loans; up to 25 per cent in securities quoted on the Paris bourse; in advances against the above securities up to 75 per cent of their market value; in loans against real estate up to 50 per cent of its value. French companies may also invest abroad in tangible securities up to 25 per

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cent of the value of business done in each separate country. They may also acquire real estate abroad for branch offices. For French companies the securities must either be in nominative form or else represented by Bank of France acknowledgments.

Foreign companies will have five years in which to replace by annual installments of 20 per cent each at least the securities they will be obliged to deposit in the Caisse des Depôts as guaranty for the value of the policies effected in France and Algeria prior to their registration. The class of securities and proportions are identical with those applying to French companies up to 75 per cent of the policy capital involved. The remaining 25 per cent may be invested abroad in such recognized trustee stocks as are authorized by the laws of the country where such company is registered. This, however, is to cease when the current policies comprised in the aggregate amount have expired.

COST OF GOVERNMENT WORK.

A correspondent writing from Paris tells of the declaration of a most important section of the new French Chamber to the effect that "Capital is the enemy, and capital must be struck. The State must own all and direct all, and all the great industries must be conducted for the general profit." The correspondent adds:

The workmen employed by the State do not receive wages comparable with those paid in similar private industries. The cost of managing the Government monopolies of tobacco and matches leaves such small profit as to amount to less than that received from the English custom-house for the duties levied on the tobacco imported into the United Kingdom. Were the State reduced to selling only the matches made in the Government factories there would be no profit at all. The best matches sold in France are imported, and are bought by the Government at 30 per cent less than they can be made for in its own factories. The only railway the State possesses cost 935,000,000 francs. At the time of the purchase it was stated it would pay about 4 per cent. It has never yet paid its working expenses, and the deficit every year is generally about 26,000,000 francs, equal to $5,000,000.

MARKET FOR PUMPS.

DEMONSTRATION NEEDED TO SECURE SALES.

Consul-General Robert P. Skinner, of Marseille, reports that he has received requests from many correspondents in the United States for names of first-class firms in France who might be induced to take a general agency for American pumps and hydraulic machinery. The consul-general writes:

There are a number of such firms in this city, and I have communicated directly with several of them.

In each case it turns out that these houses already represent either American or French pumps, and therefore have no disposition to take on any other competing line. They could be interested, therefore, only if the American manufacturers visited this city, and demonstrated the superiority of their particular pumps. To discover properly equipped

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firms or individuals, not already engaged in this business, without the special knowledge which only manufacturers possess, is exceedingly difficult.

The information obtained in this connection merely confirms statements frequently made heretofore, namely, that attempts to build up an export business by correspondence and without the introduction of the personal element in the initial stages are rarely satisfactory. If my correspondents should visit this city, inspect local stocks, and visit innumerable firms and individuals whom I might mention, it is altogether probable that results would follow, but by an exchange of letters a successful issue is far less probable. There is a considerable demand for pumps on the part of shipbuilders at La Seyne and at Port de Bouc, where the shipbuilding plants are located. In the city special pumps are required by manufacturers of chemical products and acids. Manufacturers of oils and soaps are also buyers of large pumps, the price of which approximates $579 put in place, this statement being too vague, of course, to convey any real information. There are, furthermore, in this region numerous coal, lead, and bauxite mines and stone quarries, in all of which power pumps are required. As several of the standard American pumps are already on sale in this market, it goes without saying that other American firms would have no greater difficulties in overcoming the tariff rate of 25 francs per 100 kilograms ($4.82 per 220 pounds) on ordinary pumping machinery.

AUSTRIA.

ITS MINERAL SPRINGS THREATENED.

EFFECTS OF MINING AND MANUFACTURING.

John S. Twells, commercial agent at Carlsbad, Bohemia, sends the following concerning the relation between mining and mineral springs, which the Austrian Government has appointed a commission to investigate:

It is notable that wherever mineral springs exist or bathing resorts have been established in Austria they are surrounded by hills, in the valleys of which these bathing places are situated. Teplitz, in my consular district, where there are hot mineral springs, lies in the center of the Bohemian coal-mining trade, and close to Carlsbad are the famous kaolin or clay mines, from which 3,000 railway wagon loads of clay are digged annually, and from these mines the necessary material for the supply for the Austrian and German factories is obtained. One of the most serious questions confronting those interested in the mineral springs of Austria for many years past is, first, in what way does mining endanger the flow of these springs, and, second, in what way can the best protection for the sources of these waters be obtained?

The mineral springs in Austria, which are mostly the property of corporations or of private individuals, are highly valued by the Austro-Hungarian Imperial Government, while on the other hand the coal and clay mines give work to thousands of men, and in consequence of the abundant and cheap supply of coal flourishing manufacturing towns

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have grown up along the lines of these mining districts, from which the Empire derives a considerable income. Up to the year 1879 the inhabitants of Austria never seriously investigated the question of how far mining and mineral springs influence each other, but in that year it was discovered that the hot springs of the town of Teplitz, which had been known to exist since the year 762, or 1,117 years continuously, had suddenly disappeared, and two hours later reports reached the town that water had broken into three coal mines about 15 miles distant from Teplitz and 21 miners were drowned. When in addition it was discovered that the waters in the mines were 40° warm, it was clear that it must have been the same water that disappeared from the springs at Teplitz.

During the past 27 years the municipalities and proprietors of mineral springs have been petitioning the Austrian Government and parliament to establish laws for the protection of mineral springs against the effects of mining. Two weeks ago the Austrian Government appointed an imperial commission of experts, who will thoroughly examine the existing laws and conditions and in all probability establish new laws and regulations.

RUSSIA.

PURCHASES ABROAD.

IMPORTS OF AGRICULTURAL AND OTHER MACHINERY.

Ambassador Meyer sends from St. Petersburg tables showing imports of agricultural machinery into Russia during the years 1904 and 1905, also for the same period of iron and steel machinery of every other description, etc. These figures mark the enormous importation of German and English machinery, but as the discriminating duties were removed in September, 1905, the last part of that year and the year 1906 should show an appreciable increase of importations of American machinery. The ambassador also furnishes a table of total imports, according to countries, from 1899 to 1905. Values are stated in rubles. One ruble is equivalent to 51.5 cents United States currency.

Country.	Agricultural.		Other machinery, hardware, firearms, etc.	
	1904.	1905.	1904.	1905.
	Rubles.	*Rubles.*	*Rubles.*	*Rubles.*
England	2,444,124	2,369,000	8,545,109	10,733,000
Germany	5,884,322	4,313,000	25,031,485	36,018,000
United States	5,773,979	6,892,457	929,825	(a)
France	92,775	None.	738,260	1,399,000

a Not available.

IMPORTS BY COUNTRIES.

The annexed table shows the total value in rubles of imports from the countries named for the years 1901–5. The figures for the United States, Egypt, China, Holland, and Persia are not available for the

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year 1905. The totals include value of imports from all countries. Raw cotton constitutes a considerable portion of the imports from the United States and Egypt.

	1901.	1902.	1903.	1904.	1905.
	Rubles.	*Rubles.*	*Rubles.*	*Rubles.*	*Rubles.*
Austria-Hungary	24,901,226	23,962,137	27,098,221	21,482,974	78,642,000
Great Britain	102,967,039	99,224,086	113,870,116	103,390,798	95,471,000
Germany	210,954,058	208,471,623	241,897,266	228,154,987	232,987,000
Holland	8,550,320	11,417,271	10,579,878	11,387,157	.....
Egypt	18,299,497	15,152,914	10,215,685	16,066,411	.....
United States	34,920,783	39,949,405	63,167,381	62,926,401	.....
China	46,903,337	52,176,611	56,497,836	52,455,405	.....
Persia	25,481,931	23,486,410	26,480,435	23,865,908	.....
France	27,792,242	26,883,002	27,913,235	26,548,366	25,860,000
Total, including imports from all countries	593,425,456	599,150,984	681,670,137	651,402,823	553,520,000

GREECE.

COMMERCIAL PROGRESS.

GOVERNMENT STATISTICS OF FOREIGN TRADE ISSUED.

Mr. J. B. Jackson, minister at Athens, quotes the following from the "Commerce of Greece with Foreign Countries" for the year 1904, which has just been issued by the Greek bureau of statistics:

The total value of Greek trade during the year in question was 227,585,839 francs (franc, 19.3 cents), being 137,016,282 francs imports into the country and 90,569,557 francs exports. The value of the imports from America was only 1,517,050 francs—considerably less than it was during the four preceding years—while the value of the exports to America (4,195,709 francs) was more than in 1902, but less than in 1903, 1901, or 1900.

SLOT MACHINES.

MAY BE PROFITABLY INTRODUCED.

Consul George Horton, writing from Athens, says: Coin-operated or "slot" machines are practically unknown in Greece, about the only examples of the kind being a few introduced by the Princess Sophia in the interests of the Society for Forest Preservation, of which she is honorary president. These machines are manufactured here and are clumsy things. They give out in return for a 20-centimes nickel a small pasteboard card. The possessor of 100 cards receives a copper medal entitling him to honorary membership in the society. These machines are not very well patronized, as the inducement is remote and intangible. A slot machine that has something attractive to offer should be a great success in this country. The Greeks do not chew gum, but they are, for example, inordinately fond of perfume. An agent who would come here with a good machine would be repaid for his trouble. I do not know whether anything could be done through correspondence or not, but names of parties who might possibly be

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interested are sent herewith. [The names can be obtained from the Bureau of Manufactures.] Coin-operated machines are not mentioned in the tariff lists, and it is therefore safe to assume that they would pay a duty of 20 per cent ad valorem, besides octroi and port dues. The bill of lading, certified by the Greek consul of the place of origin, together with a letter from the seller or manufacturer, must be presented to the custom-house authorities.

WATCH TRADE.

Consul Horton advises that the watch trade is represented by about forty dealers in Athens and Piræus.

Of these only about five or six sell gold watches. The leading dealer, who also does something of a wholesale business, sells yearly from 600 to 800 gold watches and about 8,000 of other varieties. [The addresses of this person and five other prominent dealers are given by the consul, and can be secured from the Bureau of Manufactures.]

Nearly all of the watches sold in Greece are of Swiss or German make. During the five years—1900–1904—985 gold watches were imported from Germany and 2,636 from Switzerland. During the same period over 13,000 nickel and silver watches were imported from Switzerland. Filled or plated cases pay the same duty as solid gold, i. e., 11 drachmas (drachma, 19.3 cents) each. Fourteen and eighteen karat gold watches (so called) are sold here at from 80 to 150 drachmas ($1 = 5.55 drachmas).

TAX ON GAS AND ELECTRICITY.

Mr. John B. Jackson, minister to Greece, reports, under date of June 25, that the expected bill for the taxation of lighting materials was presented in the Chamber of Deputies June 24. This bill provides for the taxation of the amount of gas and electricity used for lighting purposes (not when used to furnish motive power, etc.), and for various other lighting materials, including gasoline. On this last article the tax is to be 60 lepta (centimes) the Greek oke, which would seem to be rather high. It is to be applied as a measure of protection to gasoline of whatever origin.

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ASIA.

CHINESE EMPIRE.

OPPORTUNITIES AT CHINKIANG.

ACTIVE COMMERCE AND INDUSTRY ON YANGTSE RIVER.

Consul Thornwell Haynes, of Nanking, makes the following excellent report on Chinkiang, the largest commercial port in that consular district of China:

Chinkiang was opened to foreign commerce by the treaty of Tientsin; is on the Yangtse 150 miles from its mouth and at the point where the Grand Canal enters the river. Because of its facilities for commercial enterprise, it was once thought that Chinkiang would become one of the first ports on the Yangtse River; but Hankow began to overshadow it even before the Pekin-Hankow Railway was finished, since which time there has been a rapid diversion of Chinkiang northern transit trade to the railway via Hankow. The last-named port supplies other provinces than Chinkiang. The two ports, differing in kinds of production, do not interfere with one another in the matter of exports.

As a distributing port for woolen, cotton and piece goods, opium, palm-leaf fans, matches, petroleum, sugar, sandalwood, coal, cigarettes, and many other articles, Chinkiang has many advantages. The present greatest drawbacks to such advantages are: The urgency of improving the navigability of the northern section of the Grand Canal; the permission to tow cargo boats on the canal by launches; the suppression of the exorbitant fees demanded by the likin stations en route; and the reform of an inadequate copper cash currency in the inland markets. The future growth of Chinkiang's trade depends upon a remedy of these evils. In this connection the Chinkiang commissioner of the Imperial maritime customs in his report two years ago remarked:

> The dredging operations carried on in the northern section of the Grand Canal in December, 1902, and January, 1903, have proved so far unsatisfactory; and until that important waterway is rendered navigable during the winter season, and generally until some quicker and more regular means of transport than is available at present is supplied to commerce, the rapid growth of the trade of Chinkiang will perforce be retarded.

SUCCESS OF AMERICAN SHEETINGS AND DRILLS.

Foreign goods entering Chinkiang are practically all reshipments from Shanghai in river steamers. Their total value for 1905 was

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$10,416,000, or $43,000 short of the previous year There was a general increase in almost all kinds of cotton piece goods, white shirtings alone showing any marked decline; but the decrease in cotton yarn amounted to $725,000. Woolen manufactures fell off slightly, while metals improved appreciably. The trade in Japanese matches continues its marvelous growth. The largely increased imports of sugar did not bring corresponding profits to the importers, the market being overstocked. In 1905 kerosene oil of all kinds fell off considerably, showing a diminution of 2,623,000 gallons in the aggregate, distributed as follows: American, 1,409,430 gallons; Sumatra, 1,083,272; and Russian, 130,500. The boycott of American goods in the northern provinces, it is said, prejudiced the market for the Standard Oil Company's brands; but the large stocks laid in during 1904, when the price was low, enabled dealers to abstain from purchase at higher rates the following year. The continued heavy decline in the importation of cotton yarn is doubtless partly due to the facilities given by the Peking–Hankow Railway for conveyance to the northern districts, and the consequent transfer of the trade to Hankow; but it is also probable—and this view is supported by local dealers—that native yarns are extending their market throughout the provinces and ousting the Indian product.

INCREASE OVER FORMER YEARS.

The average of American imports into Chinkiang for the last two years shows an increase over former years, but in regard to cotton goods America compares very unfavorably with England. For instance, in regard to white, plain shirtings between 7 and 11 pounds, America entered 14,460 pieces, while England sent 420,000. The average prices of these pieces were, respectively, on a ratio of 3 to 2.78. Something strange, in view of the fact that England is compelled to import all her raw material, while America imports none! The enormous increase in the importation of American sheetings during the past ten years is astonishing. In 1896 America and England furnished 4,995 and 47,709 pieces, respectively. Last year the figures were, respectively, 33,320 and 40,719. In regard to drills the contrast is almost as great, England falling from 35,895 pieces in 1896 to 17,772 pieces in 1905, while for the same years the number of pieces of American drills entered rose from 41,570 to 74,170.

The increased import of American oil has also been considerable, rising from 2,561,270 gallons in 1896 to 4,159,000 in 1905. Russian oil dropped from 1,889,230 gallons to 545,500 during the same period. This to some extent is due to the war, but in 1902 Russia entered only 448,900 gallons. Up to 1901 Sumatra oil had not been imported at Chinkiang. During that year 388,320 gallons entered, and during 1905, 2,387,405 gallons. This enormous increase is due to the fact that the Sumatra article sells for nearly one-half of the American.

Except canned goods and some few articles of stationery and novelties, the above are all the American products imported at Chinkiang.

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IMPORTS AT CHINKIANG.

Other imports and quantities of same for 1905 are as follows:

Articles.	Amount.	Articles.	Amount.
Opium.....pounds..	312,463	Union Italian cloth, plain and figured.....pieces..	2,098
Shirtings, gray, plain.....pieces..	527,629	Woolen goods:	
Sheetings:		Camlets, English.....do....	220
American .....do....	33,320	Cloth, broad, medium, and habit .....pieces..	585
English.....do....	40,719	Lastings.....do....	878
Shirtings, white, plain .....do....	116,799	Long ells .....do....	3,888
Drills:		Spanish stripes.....do....	1,760
American .....do....	74,170	Woolen yarn and cord.pounds..	10,667
Dutch.....do....	750	Iron bars.....do....	713,600
English.....do....	17,772	Iron nail rod.....do....	3,972,400
T-cloths .....do....	63,916	Iron wire.....do....	632,800
Chintzes and furnitures.....do....	14,567	Iron, old .....do....	8,792,200
Plain cotton prints.....do....	35,617	Ironware.....do....	720,900
Cotton:		Lead, in pigs and bars.....do....	574,600
Italians, plain.....do....	121,360	Steel .....do....	648,100
Lastings, plain .....do....	9,983	Steel plate cuttings .....do....	5,141,733
Italians, figured.....do....	27,446	Bicho de Mar, black.....do....	318,667
Lastings, figured .....do....	54,613	Glass, window.....boxes..	4,552
Dyed shirtings:		Matches, wood, Japanese.....gross..	2,661,575
Figured, brocaded, and spotted .....pieces..	8,348	Oil, kerosene:	
Plain .....do....	3,244	American .....gallons..	4,159,010
Short cuts .....do....	92	Russian .....do....	545,500
Turkey red cambrics.....do....	45,106	Sumatra.....do....	2,387,405
Turkey red shirtings .....do....	17,077	Pepper, black .....pounds..	563,600
Handkerchiefs.....dozens..	20,020	Sandalwood.....do....	2,686,800
Towels .....do....	36,261	Japan wood.....do....	687,200
Cotton yarn:		Seaweed and agar-agar.....do....	4,837,200
English .....pounds..	113,600	Soda .....do....	2,151,467
Indian .....do....	12,048,400	Sugar:	
Japanese .....do....	583,367	Brown .....do....	57,133,733
Cotton thread.....do....	2,933	Candy.....do....	3,314,533
Chinese cotton sheetings ....pieces..	120	Refined .....do....	16,629,333
Chinese cotton yarn.....pounds..	961,867	White .....do....	22,714,533

FALLING OFF IN EXPORTS.

A falling off in the value of exports to the extent of $290,000 in the direct trade with foreign countries during 1905 as compared with the year previous is accounted for by short shipments to Hongkong of groundnut oil, groundnuts, lily flowers, and lard, together with the suspension during the war of the export of cattle to the Philippines, which is still prohibited since the conclusion of peace. The total loss on the articles mentioned amounted to $490,000, of which $200,000 were covered by the gain on exports of beans and bean cake, the former being sent for the most part to the Straits and Cochin China. Bean cake to the value of $152,000 was shipped to Japan as fertilizer.

Sesamum seed in recent years has increased more rapidly than any other export. Ten years ago the amount exported was only 800,000 pounds. Last year it reached nearly 13,000,000 pounds. Most of this goes to Japanese oil mills. There has also been a great increase in the export of sesamum oil. Within the last decennial the export of groundnut oil has trebled. During the same period the number of pieces of goat (fur) skins has decreased from 885,000 to 24,461 pieces.

The exports of beans and pease amounted to 53,262,133 pounds, groundnuts to 65,207,067 pounds, groundnut oil to 12,523,067, and sesamum oil, 10,311,600 pounds; sesamum seed, 12,987,788 pounds; rice, 82,558,333 pounds; hides, cow and buffalo, 197,600 pounds; goat skins (furs), 24,461 pieces; raw white silk, 30,133 pounds; silk piece goods, 175,718 pounds; and wheat 17,880,800 pounds.

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REVENUE—RAILWAY AND ELECTRIC ENTERPRISES.

The revenue for last year was $25,000 less than the year previous, but still compares favorably with some of the best years of the port. Its main features are a decline of over $89,500 in the foreign opium collection and $13,000 in transit dues, partly compensated by an improvement of more than $62,000 in export and $14,000 in general import duties. The export of rice, permitted in 1905 after long prohibition, contributed conspicuously to make up the loss in other directions.

The commissioner of customs at Chinkiang, in his report on the return of trade for that port for the year 1905, says:

The year's trade, measured by its net value, falls but a trifle short of its predecessor, and may be considered one of average prosperity. Commerce as a whole was moderately profitable, though the Cantonese merchants complain of a bad year, largely owing to stringency of money through overspeculation in the south. Crops were fairly good, and agriculturists were enabled to realize a sound profit by the removal of the restriction on the export of grain.

Work was begun on the new Shanghai-Nanking railway in the early spring, and a large number of coolies were brought down from Shantung as laborers. On September 1, 1905, the first sod of a tunnel 1,700 feet long, under Pao-kai-shan, a hill on the border of the British concession, was cut by the Chinkiang Taotai, in the presence of the principal local officials and members of the foreign community, and considerable progress has been made in the construction of the line.

A scheme for bunding and reclaiming the large area of silted foreshore of the river was made public early in the year, with the approval of the viceroy, the levy of wharfage dues being an essential element of the proposal.

In October electric light was introduced into the extensive Chinese suburb between the British concession and the city. The credit of its introduction is due to the enterprise of a remarkable individual, Mr. Chang Chien, a native of Tungchow, in this district, who having, when in humble circumstances, won the highest and most coveted literary rank of chuangyuan, or optimus, in the palace examination, has employed the influence so acquired in promoting the manufacturing industries of his native town and vicinity. He is an ardent supporter of the principle that China can and should manufacture for herself the fabrics now imported in such enormous quantities from abroad, and, having no capital of his own, he has had the ability to convince men of high position and wealth to entrust him with means of putting his views into practice. The extent of his enterprise may be judged from what follows:

MANY MODERN FACTORIES.

At Tang-chia-cha, a suburb of Tungchow, with water communication to the Yangtse, there are already established and at work a cotton mill of over 40,000 spindles for fine yarn, with English machinery, employing 2,500 hands, and capable of turning out 30,000 bales annually, for which a good market is said to be found locally. In the other mills there is machinery of German, American, Japanese, and some of Chinese make. There is a mill for extracting oil from cotton seed, the waste product of which also finds a good market as a fertilizer; a flour mill with a capacity of 7,500,000 pounds annually; a dyeing factory for cotton and silk fabrics; a factory for spinning and weaving silk; a canning factory for meat, fish, etc., and what will eventually be a dockyard for building steam launches and their machinery, but has at present only the plant for boiler making. Just outside of Tungchow there is a printing establishment for books and maps. In the vicinity is also a soap factory. On the island of Tsungming, on the Yangtse, under the same management, there is a cotton mill and a large brick factory, the latter at present employed in supplying bricks for the numerous buildings still in course of erection.

In addition to these 11 establishments 19 more are projected or in course of erection; among them a cotton-weaving factory is already sufficiently advanced to admit of the instruction of mill hands who will later carry on the work. All the factories are well built, worked by steam power, and lighted by electricity. Mr. Chang has also an interest in the Chinkiang flour mill, which produces a brown flour pronounced by a foreign analyst pure and nutritious, and which, as I have found, makes excellent bread. The produce of the Tungchow mill is of like quality. Old-fashioned millstones, turned by steam power, are now used, but steel rollers are to be intro-

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duced. I am informed by a Chinese gentleman, who is well acquainted with all the above enterprises, that their textile fabrics are not equal to those of European, American, or of Japanese mills, but that they are cheap and find a ready market among the Chinese. It is expected that the quality of the manufactures will improve with the growth of experience and skill.

The waterways, which spread net-like over the surrounding country, are for the most part navigable by small launches, of which Mr. Chang has half a dozen, and he has already done something to facilitate their movements by the building of a fine quay of some 1,500 feet at Tangchiacha. He has also constructed a bridge there 200 feet long over the Liho; is making lock gates on the creek between Tangchiacha and the Yangtze, otherwise rendered impassable by difference of level, and he has acquired a dredger wherewith to deepen the numerous shallows in the canals. He will shortly have two small steamers running on the Yangtze between Tungchow and Nanking.

American manufacturers and exporters interested in articles employed in enterprises such as the above might do well to address Mr. Chang.

BUYING SCHOOL SUPPLIES.

ADOPTION OF WESTERN TEACHING METHODS AND MATERIALS.

Vice-Consul J. H. Arnold indicates in the following report from Foochow a demand in China for school supplies and laboratory apparatus:

A few years ago the foreign missionary schools were practically the only institutions in Foochow offering facilities for the acquisition of western learning. There are now at least 30 native schools fashioned after the foreign model. Foochow is a city of 600,000 inhabitants, and these schools embrace about 2,000 students. Posters placarded all over the city advertise the opening of various modern schools, which are springing up in every nook and corner of the place. Scarcely a week passes without the announcement of the opening of a new school. Among those now established are a normal school, with an enrollment of 300 students; a military school, with 250 students; a high school, with 250 students; a reform school, and many intermediate and primary schools. A police training school, a medical school, and several more high schools are advertised to open within a few months. These schools are supported by subscriptions from the provincial government, by subscriptions from the literati and gentry, and by tuition charges.

It is no uncommon sight to see a group of modern school desks encircling the base of a dusty old Buddhist image in what was once a temple, while the walls of the temple are adorned with picture charts setting forth the rudiments of geology, botany, zoology, and anatomy along with maps of China, Japan, and foreign countries. Interspersed between these there may be seen bits of blackboard properly equipped with chalk and erasers, while setting upon the teacher's desk may be seen a geographical globe and possibly a bit of scientific apparatus. The temple yards are converted into play and drill grounds, for military drill and gymnastics now form an important part of the school curriculum. A school yard is no more complete without its horizontal bars, vaulting apparatus, dumb-bells, and wooden rifles than is a schoolroom without its pictorial charts, terrestrial globe, and laboratory apparatus.

THIRST FOR KNOWLEDGE.

The normal and high schools are equipped with chemical, physical, botanical, and zoological laboratories, and many of the other schools

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are more or less equipped with laboratory facilities. All China is at present clamoring for Western knowledge. They are not to be satisfied with books alone, but must have the apparatus with which modern school laboratories are equipped. They want gymnasium supplies, military school supplies, scientific apparatus, and even modern musical instruments; in short, they want all that goes toward making a modern school. At present they prefer the cheaper and less substantial sort of materials, for they want considerable for their money, and, until they have learned to distinguish between the different degrees of serviceability of the various grades of materials, they will content themselves with the poorer and cheaper grades.

The Japanese are meeting the Chinese demands in an admirable manner and the schools are being filled with cheap Japanese-made maps, charts, and apparatus of all sorts well adapted to the present experimental stage in the adoption of modern educational methods in China. If the American merchant would enter this market he can not expect to compete with the Japanese unless he, too, studies the demands as the Japanese have studied them. This is a market capable of a wonderful degree of expansion and the American merchant, to avail himself of the opportunities it offers, should send his properly qualified representative to the field to study the situation with the view of giving the Chinese what they demand rather than to try to force upon him something for which he does not care. It is useless to send printed catalogues to the consul and expect the goods to sell themselves.

EXPENSIVE BUT USELESS CATALOGUES.

This consulate is full of trade catalogues, and I dare say not one of them ever paid the expense of its printing in the business that it brought to its sender. A catalogue to be of any use in this market should be printed in Chinese as well as in English, and it should contain illustrations along with accurate data setting forth the character of the article in question, with prices, discounts, freights, and other charges. There are in Shanghai several publishing houses capable of furnishing Chinese translations and Chinese prints for trade catalogues, and I dare say they could do it at a cost such as to make it a profitable expenditure for the prospective advertiser. The Presbyterian Mission Press, the Methodist Mission Press, and the Shanghai Commercial Press are reliable concerns turning out excellent work. With a properly qualified representative in the field, the American merchant should be able to secure a strong foothold in this market, so long as he supplies goods in accord with Chinese demand. And so long as he advertises these goods properly he should have no trouble in competing with the Japanese merchant already in the field.

GERMAN MONEY ISSUE.

BANK NOTES, DOLLARS AND TAELS FOR CIRCULATION.

Consul-General Richard Guenther, of Frankfort, advises that the official organ of the German Federal Government has just published the concession to the German-Asiatic Bank for issuing and circulating bank notes in the German protectorate of Kiauchou and the German settlements in China.

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The concession runs for fifteen years. The bank notes will be of the value of 1, 5, 10, 25, and 50 dollars and 1, 5, 10, and 20 taels. In the Chinese province of Shantung only notes of the money standard of Tsingtau can be circulated. The dollar, as mentioned in this concession, is the current Mexican dollar or a coin which in general commerce is recognized as equal in value at the various places of issue or is made so by law. The bank has to give security for the redemption of the notes in circulation to the amount of the nominal value and in conformity with rules established by the chancellor of the German Empire. The bank agrees also to pay 1 per cent per annum on the yearly average amount of the daily circulation of the bank notes.

The sureties for the security of the notes are the Bank for Commerce and Industry, of Berlin; the Commercial Association of Berlin, S. Bleichroeder, the German Bank, the Disconto Association, and Mendelsohn & Co., of Berlin.

MANCHURIA.

SHANGHAI BUSINESS COMMITTEE REPORTS ON TRADE SITUATION.

Consul-General James L. Rodgers, of Shanghai, transmits the following report made by Messrs. Wrightson, Patterson, De Gray, and Midwood, the committee of American and English business men of Shanghai selected to visit southern Manchuria for the purpose of inquiring into the conditions, commercial and otherwise, which were supposed to have caused such a serious blockade of cargo in Shanghai and rendered great financial stress probable:

The absence of demand from this large, fertile and thickly populated province, which is not only being felt in the cotton piece-goods trade but in other commodities, is directly and principally attributable to the disorganized condition, both financial and commercial, of the district, a vast area of which, it must be remembered, was practically laid waste by both armies in their recent struggle. That crops were destroyed and entire villages devastated can not be questioned, and ocular demonstration of the havoc wrought during the war is still obtainable. The Chinese are, however, sustaining their reputation for rapid recuperation, the natives having returned to their usual villages or towns, and the work of rehabilitation is progressing as favorably and quickly as can be expected. Their homes are still, in some cases, under reconstruction, and the crops, it must be noted, are still to be harvested.

EFFECTS OF A STATE OF WAR.

It must not be forgotten that the territory of which we write was the seat of a big and disastrous war, and that less than eight months have elapsed since a treaty of peace was signed. If we mistake not a similar condition of affairs existed subsequent to the hostilities in South Africa, when, it will be recalled, heavy losses were sustained by overconfident traders who overpurchased in anticipation of a demand, which materialized only after a long delay. The disruption of transportation facilities by the commandeering of both native junks and carts for military purposes, and the partial destruction of the railway

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line from Port Arthur to Mukden, are also important factors that must be recognized from a trade point of view. The recovery must necessarily be gradual, and while it is true trains are now running between the points named, it is not reasonable to suppose that these were available until quite recently for trade purposes. Patience must therefore be the watchword of those materially interested in this question, and it is our confident belief that a revival of trade on a much larger scale than has hitherto been witnessed will be the final result.

It is satisfactory to record that the stock of cotton piece goods, which article engaged our special attention, can not be considered more than normal at either the distributing port of Newchwang or in the interior consuming centers, and we submit this opinion without reservation, our inquiries regarding this feature of the situation having been exhaustive both among the larger dealers and smaller shopkeepers throughout the country we have traversed, including the cities of Newchwang, Liaoyang, and Mukden.

FINANCIAL SYSTEM UNSATISFACTORY.

The financial system in Manchuria is very unsatisfactory and leaves much to be desired. The circulation of war notes by the Japanese Government to the extent of about 200,000,000 yen, while increasing the wealth of the province, will naturally tend to divert trade to their own country, more especially while this issue continues at any discount from local currency. The Japanese are unquestionably taking advantage of their military occupation and the tardiness of the Chinese Government to introduce their goods throughout Manchuria, and they will be more strongly intrenched the longer this province remains under their control. The renewal or construction of the railway bridge over the Liao River in the neighborhood of Hsinminton, which now seriously interferes with the large junk traffic over this waterway, is a matter requiring immediate attention.

The opinion among the merchants at Newchwang is practically unanimous that the trade of that port is seriously affected by the disorganization of the usual railway transportation between Thieling and Kuan-cheng tsu, the latter a very important distributing center, now in the hands of the Russians. About 40 miles of the line have been torn up, but is now being relaid.

OPENING OF DALNY.

WILL SOON BE READY FOR COMMERCE AS "FREE PORT."

Consul-General J. E. Jones, of Dalny, writes from Yokohama that the former "model city" of the Russians in the Far East, renamed Dairen by the Japanese after it was turned over to them, will open its doors to the commerce of the world within a short time. Mr. Jones says:

At a recent meeting of the privy council it was decided to remove the city from martial law. This is regarded as the first step in the opening of the Liaotung Peninsula under the operations of the Russian lease, to which Japan succeeded. It has been determined that

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Dairen will be a free port, and, consequently, open to the commerce of the world. There have been some misunderstandings as to just what was meant by making it a free port. The Chinese have construed it to mean that all goods landing at Dairen not only are free from the exactions of the Chinese or Japanese tariff, but may be transported across the border without the payment of any duty, and thus seriously impair the Chinese customs revenues. Even Russia seems to have misunderstood the proposition, for recently a dispatch was printed in one of the vernacular papers that Russia was considering the proposition of making Vladivostok a free port in order to compete with the new situation.

This entire subject of customs revenue is now being considered on the ground by a committee representing Japan, with Major-General Fukushima at the head. It is understood that three propositions have been offered. One was the establishment of a Chinese custom-house at Wafangtien, which is located on the boundary between the leased territory and China. Another is to establish a custom-house at each railway station. The third is to establish a custom-house at Dairen under Japanese supervision. Various arguments are urged against all of these propositions. Against the location of the custom-house on the boundary between the leased territory and China it is urged that such an arrangement will be inconvenient for passengers and merchants, whose persons and goods must be subject to inspection.

There are fewer adverse criticisms of the third proposition than any of the others, and it is likely that this will be eventually adopted. The Japanese commission which is now making investigations will, it is said, endeavor to make an arrangement with the Chinese Government concerning the abolition of military administration offices and the quarantine inspection at each railway station, which has proven quite troublesome. Japan is completing every detail of the management of the leased territory before inviting the world to visit Dalny.

YALU VALLEY TIMBER DEVELOPMENT.

Mr. Jones writes as follows concerning the concession given in the treaty between Japan and China for the formation of the Japan-China Timber Company for exploitation of timber in the Yalu Valley:

A short time ago two Japanese timber experts visited the locality and made a careful estimate of the available supply and probable cost of handling. One of the details of the enterprise is the rafting of the timber, and their estimate of the probable cost of a raft of 500 trees is $183 for labor of felling trees and making raft, $76 for sustenance of laborers employed, $13.50 for 3 raftmen, $40 for 10 carriers, $24.50 for sustenance of raftmen and carriers, $30 for hire of 1 ox, $73 as recompense to contractors 20 per cent of expenses. The selling price of raft is figured at $660, leaving a net profit of $220 or a total profit on 3,000 rafts per annum of $660,000. The business expenses are set down at $54,400 and establishment expenses at $159,000. This report is submitted as bearing upon the general idea that, so far as possible, it is the purpose of both Japan and China to control the enterprises in Manchuria, to the exclusion of the foreigner.

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TRADE WITH JAPAN.

PRACTICAL GOVERNMENT AID FOR EXPORTS.

Mr. Luke E. Wright, ambassador at Tokyo, sends the following statement of a Japanese newspaper in regard to the Manchurian trade:

"The Specie Bank's arrangement," says a director of the Bank of Japan, "to advance money at a low rate of interest against merchandise shipped to Manchuria must be meant to encourage the Manchurian trade." If the Bank of Japan makes a special arrangement with the Specie Bank in this matter, it will not hesitate to do the same thing for the First Bank. Thus it will be seen that money at a low rate of interest will be advanced against the goods exported both to Manchuria and to Korea.

For the proposed Japanese exhibition of cottons and other goods at Mukden in September, the chambers of commerce of Tokyo, Osaka, Kyoto, Yokohama, Nagoyo, and Kobe have secured $50,000 contributions, expecting the Government to contribute about $25,000 more.

The Mitsui Bussan Kaisha, sole agent in Manchuria for the five companies that have formed an export union, regards that union as a very important organ for developing Japan's Manchurian trade and has decided to work for the extension of markets without any compensation for a year. The company has already commenced the work, covering Newchwang, Dalny, Antung, Tieling, Mukden, Kuanchengtze, etc. The Mitsui Company is ready to popularize the union's trademark by various means. For exporting cotton cloths a corporation with $100,000 capital has been formed. "A large number of Chinese will immigrate into Manchuria as they become used to Japan's good administration," concludes the Jiji Shimpo.

JAPAN.

LATE TRADE MOVEMENTS.

NEW CONDITIONS THIS YEAR IN FOREIGN COMMERCE.

Consul-General Henry B. Miller, in a report from Yokohama, states that the first five months of the year show that the Japanese import trade, which exhibited great expansion during the war, is falling off, while exports are showing a remarkable increase. Mr. Miller writes:

Imports still exceeded exports, however, the amount being for the first five months of the year some $21,500,000. The exports were $73,218,500, an increase over the corresponding period of last year amounting to $13,500,000.

The five months' imports amounted to $94,787,500, or a decrease of $24,326,000 from the 1905 period. Increases are noticeable in the export of habutai, 8 per cent to $6,236,000; cotton yarn, 43 per cent to $2,187,000; porcelain, 57 per cent to $1,427,000; raw silk, 25 per cent to $15,842,500, and copper, 79 per cent to $4,506,500. Various articles of import suffered, the five months' purchases of raw cotton being $25,068,000, a decline of $4,352,000; iron and steel, $2,750,000, a decrease of $736,500; machinery, $3,875,500, a decrease of $1,253,000; locomotives, carriages, etc., $2,399,000, a loss of $803,000; steamers,

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$567,000, a loss of $1,469,500; rice, $8,717,000, or one-half the same period of 1905; kerosene, $2,730,000, a 20 per cent decrease; while leather imports fell to $613,500, having been $3,256,500 in the 1905 period.

Although this change in foreign trade is partly due to the restoration to normal conditions since the close of the war, the heavy reduction of imports and steady increase of exports is still remarkable. This can not be the result of accident or be occasioned entirely by natural causes; but to my mind it comes as the result of well defined and executed plans of the Government in assisting and directing industrial affairs. This increase in exports is practically confined to two countries, China and the United States. It is interesting to note the growth in exports to these two countries. The figures for the first four months of the year are as follows:

	Exports to China.	Exports to United States.
1904	$9,322,000	$13,279,500
1905	13,936,500	14,010,000
1906	16,435,000	16,681,000

The great increase of both imports and exports in the relations between China and Japan clearly indicates that the industrial, commercial, and political interests of the two countries are intimately bound together. For the first four months of 1906 the imports from the United States of kerosene, flour, and paper show a considerable increase over the previous year, while nearly all other things show a large decline. The constant and ever increasing growth of exports from Japan to the United States shows the great necessity of our country as a market for Japanese products and should become the means of enlarging our markets in Japan and binding more closely American interests in this part of the world.

COTTON-SEED TAX—RAILWAY BONDS—CEREAL CROPS.

Cotton-seed dealers in Nagoya held a meeting and adopted a resolution to petition the Government for the removal of the customs duty on cotton seed. It was also decided to form a guild of cotton-seed dealers.

The capital invested in the railways of Japan will soon be returned to the public in the form of Government bonds, and shareholders are beginning to seek new investments and are generally anxious to subscribe to the South Manchuria Railway Company. At present the traffic receipts of the railway in Manchuria are said to average $26.50 per day per mile, giving a net profit of about $6.

Mr. Terada, managing director of the Namboku Petroleum Company, lately floated with the object of incorporating the small kerosene works in Formosa, Aomori, and the Hokkaido, has returned to Osaka from Formosa. He states that one new well recently sunk 153 feet is producing 400 gallons daily.

An incorrect report has been circulated that the crops of wheat and barley have proved a failure, resulting in the advance of rice. The department of agriculture and commerce estimates the harvest at 19,613,495 koku (1 koku=about 5 bushels), showing an increase of 884,556 koku, or 4.7 per cent over the figures for last year, and an increase of 307,266 koku as compared with a normal year.

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LEATHER MARKET SLUMP.

The war caused a very large demand for leather, and Messrs. Okura, the Sakuragumi, and all other firms in the trade had a record spell of prosperity. They produced a normal year's output in one month, and yet could not execute all the army orders. The slump after the restoration of peace has been felt acutely, and, moreover, the army authorities have started to manufacture their own shoes, saddlery, and knapsacks. Leather manufacturers with small capital have had to discontinue business, and the Imamiya Leather Company, of Osaka, has decided to wind up. On the other hand, the leather-belting business is exceedingly prosperous, the demand steadily increasing as the manufacturing industries expand, and the prospects of this branch of the business are very bright.

Viscount Aoki, ambassador at Washington, is named by a Yokohama journal as a principal stockholder in the new Japanese glass syndicate which has already purchased Uyesugi's glass-bottle factory at Osaka. Mr. R. Loonen is president of this $750,000 company, which will chiefly make sheet glass and bottles.

FISHING PROGRESS.

MODERN BOATS WILL BE ADOPTED—CANNING DEVELOPMENT.

Consul Charles B. Harris, in response to a request from an official in the Philippine Islands, in charge of fishing investigations, sends the following information relative to the capture and preservation of fish for the market at Nagasaki:

The fishing boats used are principally made for sculling; consequently are comparatively frail, and hardly fit to sail against a stiff breeze. I am informed that the authorities are considering the defects of the Japanese fishing boats, with a view to the introduction of western styles, which will be gradually adopted by the Japanese fishermen.

In the island of Kyushu the pound net is used a good deal in taking various kinds of fish as tunny, bonito, yellow-tail, etc. A net of this variety is sometimes several thousand feet in length. The seine is also used extensively in Japan to catch sardines, anchovies, etc., and it is said to have been made after an American model. The seine nets are very long, sometimes even 3 miles in length. There are several other kinds of nets used in this Empire. The spread net, for instance, is spread on the bottom, and when it is raised catches the fish that may be within its reach. Lines are also used, sometimes being long lines, which are left stretched in the water, or else hand lines. Weirs and traps are made use of in the capture of fish in ponds and streams.

As regards the preservation of fish, processes vary according to the different kinds of fish which are dealt with. Certain parts of herring are used for food and the remainder is pressed for the oil and to make guano. More latterly, however, in view of the competition of the imports of bean cakes from North China, herring guano from Asiatic Russia, and sardines from Korea for use as fertilizers, the authorities have encouraged the curing of herring by smoking and salting.

The prospects of the sardine-packing industry in Japan are bright, and the Government is encouraging the tinning of sardines and the

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preparation also of anchovy sauce in foreign fashion. The bonito fish is dried and smoked. The "tai" is only very seldom salted down, it being generally sold in the raw condition. Tunnies also are occasionally prepared in salt or dried. Yellow-tail, mackerel, and cod are preserved in salt, the oil also of the latter being used as medicine. Salmon is salted or tinned.

Shellfish, lobsters, prawns, cuttlefish, and seaweed are other important factors in the growing commerce of the Eastern-Asiatic nations in their own sphere of commercial relations, and the output of this class of marine products figures up a considerable sum in the trade of Nagasaki and this part of Japan. Whaling and whale meat are subjects by themselves.

ASIA MINOR.

RESTORATION OF PALESTINE.

LAND AGAIN ENJOYING PROVERBIAL MILK AND HONEY.

British consular officers in their reports on the Holy Land give evidence of prosperous conditions there. The reviews for 1905 show increases in the exports and imports and in the much larger tonnage of vessels calling at the port of Jaffa.

The stimulus given to Palestine trade was in a great measure due to plentiful rains and consequent good cereal and orange crops and the absence of quarantine restrictions. In fact since the opening of the railway between Jaffa and Jerusalem in 1892 the trade and commerce of Palestine have continued to make steady progress, which is still further shown by the increasing business of the custom-house at Jaffa. Twenty years ago the revenue was about $50,000, while last year it was estimated at $200,000. Another incentive to trade is the annually growing number of tourists who now visit the country in spring and autumn, arriving frequently in specially chartered vessels.

GOOD CROPS AND EXPORTS OF CEREALS, FRUIT, AND WINE.

The exports and imports in 1905 totaled $4,047,000, an increase of $308,000 over the previous year. There was a considerable quantity of millet, lupines, wheat, and beans exported. Nearly 2,000,000 bushels of barley, worth about $600,000, were exported from Gaza district. The export of oranges increased 10 per cent, amounting to $558,000. Scotland was the heaviest buyer of oranges. Prices rose toward the end of the season, and the good profits give further encouragement to this trade. New orange groves have been planted in different directions about Jaffa. Greater quantities of watermelons were also shipped, the value being $92,000. The grape crop was very abundant, and there was considerable activity displayed in the wine industry in the Jewish colonies, where the manufacture is largely for export. Wines and spirits went to Germany, Great Britain, and the United States to the value of $228,826, representing 3,708,400 kilos (kilo= 2.20 pounds), or an increase of $45,000 over 1904. As regards other articles of export, there was an increase in religious ornaments and hides, but a decrease in soap, sesame, wool, and colocynth.

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LIBERAL FOREIGN PURCHASES.

The imports of Palestine last year amounted to $2,258,000. Hardware, petroleum, cotton goods, sugar, and building materials, such as iron bars and girders, timber and tiles, and bricks, show a steady increase during the last five years, denoting a growing population both in Jerusalem and Jaffa. The value of cotton goods imported last year was $876,000, an increase of $100,000. These goods come almost entirely from Manchester, but are largely imported via Beirut, Syria, and, therefore, classed as imports from Turkey instead of the United Kingdom. Hardware was imported to the value of $136,000; petroleum, $126,000, and iron and ironwork, $81,000—all considerable advances over the previous year. The other articles showing increased importation were flour, coal, wines, and spirits, whereas there was a falling off in tobacco, rice, coffee, machinery, tin plates and sheets.

A marked progress in every respect is to be noticed at Jaffa; the population is increasing, the trade is sensibly developing, land is augmenting in value, rents are generally higher, and money is easier and at lower rates. The banks advance money against good securities at the rate of 6 per cent, against goods at 7 per cent, and against signatures at 8 per cent. Four banks do business at Jaffa, namely, the Imperial Ottoman Bank, the Credit Lyonnais, the Anglo Palestine Company (Limited), and the Deutsche-Palästina Bank. The Imperial Ottoman Bank has transferred its head office to Jaffa, leaving a branch at Jerusalem.

In spite of the competition carried on by Germany, Austria-Hungary, Italy, and Belgium, the following British goods, says the consul at Jaffa, find a good market there: Coal and patent fuel, caustic soda, Manchester goods (prints and T cloths), iron (bars, girders, and plates), tin, zinc, tin plates, copperplates, bedsteads, paint and linseed oil, confectionery, tinned provisions, and herrings. On the other hand the continental manufacturers hold the market in the following articles: Glass, earthenware and pottery, hardware, hosiery, cloth, silk stuffs, leather, ladies' clothing, pharmaceutical products, sugar, coffee, silver work, watches and clocks, beer, spirits in bottle, and perfumery. The question of erecting a new custom-house at Jaffa is still pending.

OPENING UP THE HOLY LAND.

At Gaza the Government proposes to build a sea jetty, which would give an impetus to trade there, as at present there is only an open roadstead, and whenever the sea is rough the loading or discharging of cargoes is impracticable. Gaza has 40,000 population. Beersheba, though at present consisting of only 50 dwellings, is rising in importance, as it is the seat of government of the 70,000 Bedouin, who inhabit the district. The governor of Beersheba is doing his best to encourage building. There is a carriage road being made to Hebron from Beersheba, which is also a telegraph station.

The Jaffa-Jerusalem Railway is a prosperous line. Statistics for 1905 are not yet available, but for 1904 the receipts amounted to $171,000, of which 61 per cent was profit, the best since the railway was opened. The number of passengers conveyed was 9,555 first class and 83,021 second class. The total tonnage of merchandise handled was 25,000 tons. The carriage road between Jerusalem and Nablous, the ancient

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capital of Samaria, is still in course of construction. An easier, though slightly longer, road than the present one is also about to be made down to the Dead Sea and Jericho, and it is expected will be finished in the course of a year. As the gradient will be less steep, it will be more suitable than the existing road.

PROSPEROUS SYRIA.

Commerce on the Syrian coast is steadily growing, according to the British consul at Beirut. German and British steamer lines are in active competition. For outward return voyages the latter had the advantage owing to the large shipments of barley to the United Kingdom. During 1905 about 15,000 tons of barley were taken from the port of Beirut alone, and there is every probability that this amount will be nearly doubled during 1906. The Homs-Hama crop of barley alone was about 50,000 tons. In anticipation of this heavy traffic the rolling stock of the two railway lines, Beirut-Damas-Hauran and Rayak-Homs-Hama, has been increased. The company is even considering the adoption of the original project of a broad-gauge line to supplant the present tramway which crosses the Lebanon Range over very steep gradients. The railway from Haifa to Damascus creates openings for the sale of oil engines for working flour mills and for irrigation purposes, hardware, ironmongery, and agricultural machinery.

The imports at Beirut in 1905 aggregated $7,483,000, or half a million dollars greater than in 1904. The bulk of the cotton and woolen goods, yarn, and thread came from the United Kingdom; 30 per cent was shared between Germany, Switzerland, and Italy. Great Britain also supplied two-thirds of the preserved goods, such as tinned meat, fish, biscuits, and confectionery, while the paint and linseed oil came exclusively from Great Britain; white-lead paint and dry colors, however, came from Belgium and France. The 52 tons of ropes and steel wire were shipped from Marseille and Liverpool. Belgium supplied the bulk of iron and steel. The 7,200 cases of hardware and ironmongery arriving at Beirut in 1905 were almost double the average importations of previous years, and were bought in Belgium, France, Germany, Austria-Hungary, and Great Britain. French drugs and medicines predominate, and the trade is increasing by several hundred cases each year. The sole mention of the United States in the trade returns by the consul is the supply of some petroleum, on account of the Russian strikes, and some beer.

The exports from Beirut, all told, amounted to $4,663,000 during 1905. In addition to the heavy shipments of barley, 12,500 quarters of wheat, 2,300 bales of hides and skins, 5,000 cases of soap, and 6,000 bales of wool went forward, while from Haifa were shipped 20,000,000 pounds of sesame; Tripoli sent 300,000 boxes of lemons and oranges. Other products exported from these ports were beans, silk, licorice root, dried fruit, egg albumen, olive oil, wine, and tobacco.

ASIATIC TURKEY.

LARGE QUANTITIES OF STARCH USED IN CONFECTIONERY.

Consul T. H. Norton, of Smyrna, reports that large amounts of starch are employed in Turkey in the manufacture of confectionery, more especially in the preparation of lokoums or "Turkish delight:"

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Smyrna imports about 300 tons annually of wheat and corn starch for this purpose. It comes usually in sacks of 100 kilograms. France supplies most of this grade, although there is a growing import from the United States and from Hungary. There is an annual importation of 100 tons of rice starch, chiefly for use in laundry work. The best grades come from Great Britain. Cheap grades are brought from Belgium, while very cheap grades are brought from Syria. Rice starch is ordinarily imported in cases of 25 kilograms. The French starch employed in confectionery is rarely used by laundrymen, who claim that it is likely to stain linen articles. The wholesale prices of the various grades of starch at Smyrna range from 30 to 38 francs per 100 kilograms (or $2.64 to $3.32 per 100 pounds). Labels on packages of starch destined for the Levantine market should preferably be in French. If additional Greek and Turkish can be used, there would be a distinct advantage.

[The leading houses in Smyrna engaged in the importation of starch are given by the consul, and can be obtained from the Bureau of Manufactures. One of these deals in American starch and many other American specialties.]

FISH IMPORTS.

Consul Norton also details the Turkish trade in canned, dried, and salt fish. The exports of these articles from Turkey average $675,000 annually, while importations amount to $300,000. Cod is the chief fish imported, Smyrna alone buying $22,000 worth. Prices range from $6 to $7.35 per hundredweight. Smyrna also buys 1,000 barrels and 200 bales of haddock, 5,000 to 10,000 barrels of smoked herring, 60 tons of smoked mullet, while into all Turkey the annual imports amount to 400 tons of salted sardines and 30 tons of anchovies, the latter article coming from Italy and selling at $14 to $16 per barrel of 176 pounds. [The leading importers of fish at Smyrna are given in the report and will be furnished on application to the Bureau of Manufactures.]

STRAITS SETTLEMENTS.

TRAFFIC AT PORT OF SINGAPORE.

AMERICAN GOODS INCREASING IN SALES AND POPULARITY.

Consul-General David F. Wilber, of Singapore, writes that the published government reports of the Straits Settlements recently issued show marked increases in the sale of many lines of American goods during the year 1905 over 1904. While there is a falling off in others, the total increase is encouraging, especially when American representatives in that region have to contend with irregular shipping facilities and uncertain deliveries. Mr. Wilber continues:

With proper attention and effort American trade can be further increased, and if shipping facilities from New York were equal to those from England, France, and Germany a much larger share of the trade here would result. While the boycott affected sales to Chinese consumers during the last quarter it had no bearing on the amount of imports from America during that period, as most of the goods had

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been ordered before the boycott had assumed serious proportions. The total imports direct from the United States during 1905 show a gain of 40¼ per cent over 1904. The following shows the amount of imports from the United States (94 per cent coming from Atlantic coast ports), the Philippines, and the total amount from all countries (in United States gold):

From—	1904.	1905.
United States	$1,161,351	$1,628,748
Philippines	270,187	210,899
Total from all countries	168,581,544	165,810,427

The following is a list of the principal articles imported direct from the United States which show increased sales:

	1904.	1905.	Increase.		1904.	1905.	Increase.
Preserved fruits	$8,979	$15,642	$6,663	Machinery	$39,794	$43,721	$3,927
Lard	165,742	315,792	150,050	Iron nails	15,817	48,168	32,351
Medicine	4,933	9,157	4,224	Tools and implements	15,453	21,271	5,818
Condensed milk	27,920	38,687	10,767	Gas and electric lighting	3,419	6,520	3,101
Oilman's stores	49,860	81,253	31,393	Lamps and lamp ware	11,837	22,431	10,594
Cigars and cigarettes	152,754	239,670	86,916	Boots and shoes	4,110	5,597	1,487
Tobacco	9,552	23,586	14,034	Paints	16,697	20,147	3,450
Lubricating oil	144,252	191,626	47,374	Paper and paper ware	33,851	49,207	15,406
Petroleum	214,000	310,051	96,051				
Cotton goods, printed	4,020	4,630	610				
Manufactured textiles	14,409	16,662	2,253				

The following list shows in part the articles in which there was a falling off in trade from 1904:

	1904.	1905.	Decrease.		1904.	1905.	Decrease.
Drugs	$8,694	$7,824	$870	Muskets and rifles	$4,126	$2,277	$1,849
Provisions	11,411	5,936	5,475	Hardware and cutlery	15,709	12,642	3,067
Beeswax	4,460	2,011	2,449	Ironware	31,200	26,471	4,729
Linseed oil	16,056	1,800	14,256	Carriages and materials	28,312	18,127	10,185
Cotton goods, plain	15,692	5,730	9,962	Clocks and watches	12,006	4,977	7,029
Cotton goods, dyed	2,962	350	2,612	Musical instruments	7,849	4,380	3,469

The Straits Settlements' exports, exclusive of treasure, to all countries in 1905 amounted to $98,800,000, a decrease of $1,100,000 from 1904. The exports to the United States, however, increased from $17,489,090 in 1904 to $18,147,189 in 1905.

MALAY PINEAPPLES.

AN IMPORTANT CANNING INDUSTRY AT SINGAPORE.

Consul-General Wilber also reports on the important pineapple-canning industry of the Straits Settlements as follows:

The 16 pineapple-canning factories at Singapore, all but one of which are owned by Chinamen, had an output of 548,330 cases in 1905, the value being $2,788,269 in Straits currency ($1 of which is worth 56⅞ cents gold). This was an increase in production of $317,667 over the previous year. Of the amount exported in 1905, 57,411 cases

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went to the United States and 294,792 cases to England. The most popular variety for canning purposes is called the Black Gamisca. The finest pineapples grown in this part of the world are found in Sarawak, British North Borneo. A few come here for table use which are exceedingly large and have a delicious flavor.

The pineapple yield in the vicinity of Singapore, where they are grown for canning purposes, will average about 4,000 pounds per acre after two years, about 4,000 plants being set out per acre. There is practically but one crop a year, and the middle of June is the height of the harvest. Some backward plants that do not come in bearing at this period will in January produce the "small crop." Canners pay from $2 to $5, Straits currency, per hundred, according to size of fruit and extent of the crop. The pineapples grown on Singapore Island for canning purposes are small and medium in size, and quality varies greatly. As to whether the industry will increase or not depends on the demand. Chinese coolies are employed on all plantations, and receive from $6 to $8, Straits currency, per month, with food and quarters furnished. Food will cost about $6 per month.

EXPORTS FROM SINGAPORE.

Consul-General Wilbur, of Singapore, sends the following table, compiled from the Singapore market reports, showing the amount of the principal exports from Singapore, June 1 to 15, and now en route to the United States, England, and the continent of Europe; also total exports to all countries of the articles mentioned, for the same period:

	United States.	England.	Continent of Europe.	Total, all countries.
Tin ..... pounds..	462,133	1,647,066	123,200	2,232,399
Gambier ..... do....	976,666	864,266	1,000,933	2,841,865
Sago ..... do....	56,533	4,256,133	2,433,600	6,746,266
Pepper:				
Black ..... do....	248,133	56,666	293,733	598,532
White ..... do....	11,200	136,600	206,933	381,733
Gutta-percha ..... do....	52,200	236,400	119,733	381,333
Rattans ..... do....	216,800	463,466	741,333	1,421,599
Nutmegs ..... do....	18,266	8,533	2,000	28,799
Gum copal ..... do....	312,666	199,066	130,266	641,998
Tapioca ..... do....	903,333	818,133	381,600	2,103,066
Rubber ..... do....	131,066	29,866	94,666	255,598
Gum jeletong ..... do....	278,933	22,533	.....	301,466
Coffee ..... do....	3,333	.....	16,666	21,999
Pineapples ..... cases..	5,491	42,338	3,115	50,944

INDIA.

INCREASING IMPORTS.

OPENING FOR MATCHES AND OTHER AMERICAN PRODUCTIONS.

Consul-General William H. Michael, of Calcutta, is furnishing a series of practical British India trade suggestions to American exporters, who will find the following well worth their study:

The value of matches imported into India through the port of Calcutta during 1905-6 was $567,298, an increase over last year of 20.8 per cent. Of this, Belgium furnished mostly Swedish matches, in value $208,076; Sweden, direct, $33,335; Japan and Straits Settlements,

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$166,665, and Germany, $83,335. No American-made matches were received. This suggests an opportunity for American manufacturers of matches. It should be borne in mind that matches intended for the Indian market should be made especially for a damp, humid climate. The safety or parlor match is most in favor, because best suited to the needs of natives as well as of Europeans.

GUNS AND AMMUNITION.

There was an increase in the importation of arms and ammunition during the same period, by 6.3 per cent over the same period of 1904–5. The number of guns (shotguns) and rifles received was 3,761 and the number of revolvers 908. The refunds to importers at this point amounted to $50,000. This "refund" refers to the return of money deposited by importers of guns and rifles and revolvers when they take the goods out of the custom-houses. For each gun or rifle imported a deposit of about $16 is required by the Government. This is returned when the gun or rifle is sold and a voucher is presented covering the sale.

In consequence of the inconvenience and embarrassment incident to the importation and sale of this class of arms several varieties of air and spring rifles have been introduced, which find a market among the natives, who are not put to the necessity of giving a bond when they purchase this class of gun. These air-spring rifles and smooth-bores are manufactured in England and Germany. Our American gun manufacturers seem not to have met the demand for this kind of arms. The American guns and rifles and ammunition are preferred in the Indian market, and a house or agency established in Calcutta to handle exclusively American manufactured articles of this kind would do well.

UMBRELLAS UNIVERSALLY USED.

Nearly every native Indian who can afford one is the happy possessor of an umbrella. He needs it to shelter him from rain and to shield him from the fierce rays of the sun. The United Kingdom has for a great many years supplied the bulk of this article to the Indian trade, but the imports have fallen off till the value of the imports for 1905–6 amounted to only $70,241, and England supplied 99 per cent of the goods. The cause of this falling off is due to the fact that imported umbrellas can not compete with home-made ones. India is now practically making her own umbrellas.

Fittings for umbrellas, however, are imported in large quantities. This year, 1905–6, the value of umbrella cloth imported was $636,102 and the value of the fittings was $413,434. The United Kingdom, Belgium, and Japan met this demand. Japan more than doubled her trade in this line this year. There is no reason why American manufacturers and exporters should not enter this field and get a good share of the trade.

FINE INCREASE OF BUSINESS IN FOREIGN GOODS.

Mr. Michael also gives the class of imports and exports to and from India for April, 1906, and their values as officially reported:

Animals, living, $71,695; articles of food and drink, $4,818,913; metals and manufactures of hardware and cutlery, machinery and

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millwork, railway plant and rolling stock, etc., $4,538,706; chemicals, drugs, medicines, and narcotics, dyeing and tanning materials, $723,949; mineral oils, $393,984; other oils, $71,654; raw materials and unmanufactured articles, $1,052,624; articles manufactured and partly manufactured cotton yarns, $897,264; cotton piece goods $9,729,868; other articles, $4,377,639. The grand total for merchandise is $25,676,296. The amount of gold imported during the month was $2,915,637, and of silver $1,825,639.

The exports for the month were as follows: Foreign merchandise, $1,017,485; Indian merchandise exported, animals, living, $65,614; articles of food and drink, $12,593,860; metals and manufactures, $268,412; chemicals, drugs, etc., $2,929,229; oils, $188,938; raw materials and unmanufactured articles, $20,653,396; cotton yarn and piece-goods, articles manufactured and partly manufactured, etc., $8,865,625; total of Indian merchandise exported $45,565,074. Gold exported, $2,114,394; silver exported, $1,260,069.

This shows a large increase over the same month of the two previous years, and in some respects is the most satisfactory showing ever made. The month's business is given mainly to convey to American manufacturers and exporters the kind and amount of business that invites their attention to India as a field for business.

BURMA EXCLUDES FOREIGN PETROLEUM IN BULK.

The Standard Oil Company is not permitted to ship oils in bulk to the ports of Burma. The English and Scotch manipulators of Burma oil wells and refineries have managed to shut the door against this strong American competitor, except that the latter is allowed to enter the Burma market with canned oils.

The oil export trade of Burma ranks second in importance, rice and paddy ranking first. The number of gallons of oil exported from Burma during the month of April last was 5,440,709. Nearly all of this was taken by British ports in India. It was valued at $900,000. Burma oil is retailed in Calcutta in 5-gallon cans at 8 to 10 cents per gallon.

THE JUTE CROP.

The Government of India has issued a statement which shows that the number of acres of jute under cultivation this year is 3,271,500, compared with 3,163,500 acres last year. This is an increase of 108,000, and represents the largest acreage ever reported in the history of the trade. Estimates vary as to the product per acre. A Dundee cable dispatch estimates a crop all the way from 8,800,000 to 9,814,500 bales. The India Government says that the crop is progressing under the most favorable conditions. The actual crop last year was 8,200,000 bales, and with the increased acreage this year there is certain to be a much larger production.

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AFRICA.

SIERRA LEONE.

OPENING UP OF COUNTRY.

COMMERCIAL DEVELOPMENT OF A GREAT RESOURCEFUL REGION.

Modern discoveries and developments have made Africa a country worthy the consideration of business men throughout the world, reports Vice-Consul Raymond P. Dougherty from Sierra Leone. The map of Africa is no longer a bare outline marked with a few rivers and mountains. The secrets of the heart of the continent have been laid bare, the mighty arteries of its future commerce traced, and its far-spreading shores and wonderful hinterlands brought under the influence of a network of progressive colonies. Mr. Dougherty continues:

In west Africa England has the following territories: Gambia, Sierra Leone, Gold Coast, Lagos, Southern Nigeria, and Northern Nigeria. The first four are colonies of standing with adjacent protectorates. Northern and Southern Nigeria have been protectorates. Recently it has been decided to unite Lagos and Southern Nigeria, with colonial headquarters at Lagos.

West Africa, situated in the equatorial belt, has much against it on account of climatic conditions, but even this inhospitable part has not been neglected. Energetic steamship companies traverse the whole coast. Railroads are pushing into the interior. The telegraph follows the steam engine, and ocean cables form commercial and political links with the great nations of the world. The missionary with his schools and churches instills higher views of life. All these influences and agencies contribute largely to the social, commercial, and political uplift of the people. Such an advancement, though it has touched only the fringe of the Dark Continent, carries with it a great increase in domestic and foreign trade, and this will receive a still greater impetus as civilization penetrates inland.

From west Africa were brought the ancestors of the millions of black men now living in the United States. The intelligent population of Sierra Leone and Liberia is largely made up of the descendants of freed slaves. These enlightened members of the negro race take active part in all the affairs of their commonwealths and are developing the country industrially and commercially. Some of the promoters of trade, agriculture, and other industries were formerly inhabitants of the black belt in America or imbibed the American spirit by study and travel. The Tuskegee idea is taking hold even in this remote part of

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the world. Native tribes are also contributing to the advance in skilled labor. Young men are being trained in various trades and professions.

FREETOWN A SHIPPING CENTER.

As the military and civil capital of Sierra Leone, Freetown is a shipping center for British, French, Portuguese, German, Belgian, Spanish, and American vessels. The harbor is one of the best on the coast of Africa. Broad, deep, and beautiful, it forms an attractive haven for all kinds of sea craft. As the halfway point between England and Cape Town, Sierra Leone has been made a basic coaling station. Passenger steamers, cargo boats, and war ships frequent its ports and find it a convenient stopping place. American sailing vessels arrive often during the year and bring large consignments of American goods. Vast numbers of small boats and native canoes come down the rivers bringing the products of neighboring and far interior districts and go back laden with articles imported from distant lands.

The following are the Liverpool steamship lines which touch at the ports of Freetown and Bonthe in Sierra Leone: African Steamship Company and British and African Steam Navigation Company (Limited). Other lines which make regular stops at Sierra Leone are the Woermann Line and Cie Belgique Maritime du Congo. The former comes direct from Germany and the latter touches at Southampton, England. There is no direct steamship communication between America and west Africa. If there were such a line a great increase would be made in the exchange of commodities between the two countries.

NATIVE AND FOREIGN MERCHANTS.

In Sierra Leone the business world is well represented. There are a few large and many small native trading establishments in Freetown. By far the greater number of substantial firms are capitalized and managed by Europeans. Of these the English houses are the more numerous. The remaining are French, Greek, and Swiss. Wares from the Orient are for sale in Indian shops. Syrian traders are thick on certain streets, and innumerable native shops make the city a beehive of petty buying and selling. Arabs and native Mohammedans add another color to the kaleidoscope of commerce. [The ten principal business houses of Sierra Leone, all in Freetown, and some having branches in Bonthe and interior towns, are named by Mr. Dougherty and can be secured from the Bureau of Manufactures.] The Bank of British West Africa, Freetown, is the main banking establishment.

A trading company of New York City had long maintained a commercial house in Freetown, but their African trade was recently abandoned. This was not because there was no demand here for American goods. There is a strong feeling in Sierra Leone in favor of goods imported from America. This is evidenced by the strenuous efforts on the part of European firms in Freetown to meet the demand for American goods. One company receives large supplies direct from America by sailing vessels. Other firms obtain American goods indirectly by steamers from Liverpool. It is regrettable that there is no American firm here to carry the bulk of this increasing trade and to develop it in new lines. Such a commercial house would facilitate financial transactions with importers and exporters in America. The missionary societies in this country would also be benefited and their purchases

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would form an appreciable part of the sales. It would require from $40,000 to $50,000 to stock an American store in Freetown in such a way to compete with other large firms.

VALUABLE RAW PRODUCTS.

The export of raw products from Sierra Leone is increasing. Among such products is benni seed, a valuable oil producer, which is exported to a small extent. Cola nuts are in great demand in northwest African countries, and are exported to the value of $392,931. Ginger is exported to England and Germany to the value of $62,013. The palm kernel is the main commercial product, and is a staple article of trade in tropical Africa. Value exported, $1,040,122. Palm oil, obtained from the palm-kernel hull, is exported to the value of $79,056. The fiber industry is receiving greater attention, and many vegetable growths are furnishing excellent fibrils.

The rubber industry is not increasing very rapidly. It is carried on exclusively in the protectorate. The natives have practiced cutting down the trees to obtain the rubber, which process has naturally operated against the output. It is the opinion of experienced persons that if this continues the trade can not be maintained. Value exported, $87,865. Only a small amount of native timber is exported.

This list of raw commodities makes it quite apparent that Sierra Leone is rich in natural products, and the resources are only partially developed. The future will certainly witness extensive progress in the cultivation of the soil and in the carrying on of trade. It is to be hoped that American enterprise will establish closer commercial relations with West African territories, especially with Sierra Leone, so that many of the products of tropical Africa will find their way to the United States. But effectual trade relations can only be secured by establishing more advantageous ocean transportation between the two countries.

NOTES ON VARIOUS IMPORTS.

Canning and preserving are the main processes by which Temperate Zone fruits and meats are made possible foods in tropical lands. Hence there is a great demand for provisions of this sort in Africa. A recent innovation is cold storage on the large steamers stopping at Freetown. Frozen meats and fresh vegetables from England are transferred from vessels to an extensive ice-making plant in this city, where there is a large refrigerator. Thus it is not impossible for beef to be slaughtered in Chicago and served by the chef in Freetown.

Vast quantities of cement are used here for building purposes. The destructive white ant, or termite, makes this necessary. Some cement bricks are made and cement block machines are being imported. Portland cement of various brands is the favorite. Bricks are imported to a small extent.

English boots and shoes have the largest sale, because the American article is not properly placed in the market. The American style and make are acceptable to the people; hence there ought to be a good sale of American boots and shoes if the trade is properly looked after.

American pharmaceutical preparations are preferred by druggists in Freetown. An obstacle to the trade is the difficulty in obtaining drugs cheaply and quickly from America. Extra charges and delays in transferring from one ship to another in European ports are the

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hindrance. The scientific treatment of disease is somewhat hampered by country medicines, herb and bark treatments, and Mohammedan fetishes and charms. Quinine and other fever medicines are in good demand. [The name of the leading druggist in Freetown can be obtained from the Bureau of Manufactures.]

Kerosene, flour, and lumber are the main imports from the United States. Several kinds of American lamps are extensively sold, especially the Angle lamp. Lamps using acetylene and similar illuminating gases are coming into use. Electricity is an undeveloped force. In various departments of the government telephones are used, and in some houses there are electric bells, but electric lighting is unknown.

The African has a strong aptitude for music. The organ is his favorite instrument. This may be because the organ is more suitable to the climate than the piano. All stringed instruments are uncertain in their lasting qualities in Africa. The demand for cameras, plates, films, chemicals, etc., is quite large. On account of the climate, plates are more successful than films. [The names of the two leading photographers at Freetown will be furnished by the Bureau of Manufactures.]

The most machinery used in Freetown is in connection with the railway shops and the ice factory. The common roofing material, aside from that used on purely native houses, is corrugated iron. Travel is accomplished in hammocks carried by four men, in sedan chairs, or jinrikishas, and by the railway. Garbage carts are drawn by oxen or donkeys. Horses are not used except for riding, and that mostly by native Mohammedans. Thus vehicles which can be sold here are confined to sedan chairs, carts, and trucks.

EGYPT.

EXPANDING MARKETS.

LOW-PRICED LABOR—USE OF MODERN UTILITIES.

Consul-General L. M. Iddings, in a report from Cairo, quotes English authority that in Egypt there was an excellent opening for manual labor; but he hesitates to advise any American workingmen to go there, not only on account of the cost of living but also owing to the great heat of summer, which the natives endure easily. These work without complaint when the temperature is 107° or 110° in the shade. In regard to different trades Mr. Iddings writes:

Of good plumbing little is done. Iron and concrete conduits are used where municipal engineers in Europe and America insist upon lead pipes. Legitimate plumbing is confined to the short connections from baths and kitchen sinks to the iron and concrete conduits. The joints in the iron conduits, which are filled with oakum and then have lead poured in, are neither gastight nor waterproof. Nor will the pipes stand the usual atmospheric pressure; the joints blow out. People will not pay the extra cost of continuous lead pipes made from rolled lead, except in very few instances. So-called plumbing establishments are in the hands of Europeans. They also have the capital to invest, and can secure orders better than natives; but the actual

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work is done by native Egyptians under the supervision of an European foreman. These foremen complain, not so much of the unskilled labor they have to supervise, but of having to constantly "fake" jobs, viz, carrying them out with the wrong material.

With all large contracts, hotels for example, workmen and materials are brought generally from England, and when the work is finished the workmen return home. It would be wrong to try to induce competent men—whether plumbers or carpenters—to come and settle in Egypt. They could not compete against the cheap Egyptian, Greek, and Italian labor; it must not be forgotten, either, that nearly all the trades people are natives and speak half a dozen languages, although they may be illiterate.

The preceding remarks apply equally to electricians. The electric lighting of Alexandria and Cairo is a monopoly, and the company have all the skilled labor they require. Electric fittings are sold by various European establishments, but there is probably not a single house solely devoted to this work. The work is done by local labor. The present American agency was fitted all through by Egyptian labor, superintended by a youth of 16 or 17 years of age, who was receiving $20 a month.

Shops in the European quarters are kept by Europeans and Greeks, but generally the salesmen are Egyptians. Boots do not wear out in the same manner as they do in Europe and America, because of the absence of rain, snow, and frost. When it rains the European drives and the Egyptian takes off his boots or slippers and goes barefoot. People who get their boots or slippers repaired are of the same class as the mender, who possibly charges them 2 piasters (9 cents). Natives never order shoes to be made on their measure.

PUMPS, SADDLERY, WATCHES, AND RUBBER TIRES.

Pumps are not supplanting the sakkiehs of the smaller cultivators to any extent. There use is becoming more general only for large estates. The fellah's buffalo lives on the refuse produce of the land. The manure it gives is just the quantity required to mix with the amount of water it draws for irrigation. The animal gives the fellah milk and plows his land. The pump can only raise water, and to the small cultivator it is a luxury beyond his means. On large estates pumping machines would be too expensive were the engines not used for power for milling grain, etc.

The Egyptian will always use his village-made saddle; cavalrymen the cavalry saddle; jockeys their feather-weight saddles made to order in Europe. It does not pay saddlers in Egypt to keep a stock in hand. The saddles deteriorate and it is extremely difficult to keep moths and other insects out of the paddings. Perhaps ten European saddles are sold here in a year. Were it not for the army of occupation even these might not be wanted.

Everyone now carries a cheap watch costing from $1 to $2 and $3. Good watches are somewhat useless where "a handful of minutes" is of no account. The fellah requires in a good watch a double face, showing European and solar time. The importation of cheap sporting guns might wisely be prohibited.

Rubber tires for carriages deteriorate much more rapidly when in stock than when in use. A local company was formed some months ago for the sale of tires of all makers, and the manager is now in Europe studying the question of "protection" while in stock. For-

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merly the royal engineers kept their rubber fittings in a well, whence they were taken up as required. Perhaps they have found out a better means recently of preserving elasticity.

PETROLEUM AND COOKING STOVES.

The best portable stoves are petroleum burners. They are only required for a few weeks each year, and there will never be a great trade in them. Some spirit burners and electric stoves are used, but they are expensive to feed. Belgium sends many stoves of these kinds.

There is a future for the coal cooking ranges, but if these have an open grate they should be fitted with some sort of screen, so as to give out less heat. Radiation of heat everywhere must be avoided as far as possible. Ranges may be presently in demand in the many villas now being erected. In flats they are considered a nuisance, and some landlords will not allow them, owing to the necessary cutting of walls to carry through the smoke pipe and the unsightly pipes outside the house. Furthermore washhouses are often on the roof of the building and there is no other drying ground for the clothes. Apartment houses in Cairo are miserably planned. Generally the kitchen is so small that no decent cook will work in it.

I think there would be a market for good brooms, and for what is known in America as "wisp-brooms" for brushing clothes.

ALGERIA.

ACTIVE DEMAND FOR LIGHT AUTOMOBILES.

It is the belief of Consul James Johnston, at Algiers, that few countries employ as many automobiles as Algeria in proportion to their population, and after careful inquiry on the subject he is inclined to think that America might secure a fair, if not a large share of the trade in light and low-priced cars, for which the demand appears likely to continue and increase. The consul continues:

For the more expensive cars the supply seems to more than keep step with the demand, and competition with the French makes would be difficult. What is wanted is a light two-seated car, and a good hill climber, for level ground is the exception here. But no business, as far as I can see, can be done in Algeria without having sample cars on the spot. People will not buy before seeing the goods. It would therefore be desirable to make arrangements with a good local agent, and before doing so it would be prudent to send out a capable man, speaking French, to make himself acquainted with the wants of the country, and with the standing and intelligence of the agents and merchants. It is quite useless to try to do a trade by sending descriptive matter in English, and quoting prices in dollars at the factory.

Up to the present the French manufacturers do not appear very willing to undertake this class of business, but a serious competition may be expected from Italy. An Italian motor can be sold retail in Algiers at less than $500, freight, duty, and agent's commission all included. The duty is about $120 per ton of 2,240 pounds. [The principal dealers and agents in the city of Algiers are given by the consul, and will be furnished to applicants by the Bureau of Manufactures.]

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AUSTRALASIA.

AUSTRALIA.

MOVEMENTS OF TRADE.

AUSTRALIA'S ENGLISH PURCHASES—INCREASED IMPORTS THIS YEAR FROM MOTHER COUNTRY.

Consul-General John P. Bray, in a report from Melbourne, states that the imports into Australia from England are now increasing, and during the first three months of the present year have improved in value over the corresponding period of last year to the extent of about $2,433,250, or a little over 20 per cent.

The total value of imports of textiles and apparel from England under ten leading heads for the first three months of the year was $6,769,227 against $5,909,579 for the same period of 1905, or an increase of $859,647. The increase in cotton piece goods is $360,806, in woolens $136,422, and in worsteds $44,688. The following is a comparison of the principal imports of textiles and apparel from England for the first three months of 1904, 1905, and 1906:

Class.	1904.	1905.	1906.
Cotton piece goods.....yards..	31,250,200	32,250,000	36,128,800
Woolens .....do....	1,404,200	1,529,400	1,987,600
Worsteds.....do....	2,126,300	2,355,500	2,569,400
Carpets.....do....	265,200	231,000	248,100
Haberdashery and millinery.....dollars..	349,983	311,617	343,672
Jute piece goods.....yards..	716,000	717,300	682,400
Linen piece goods.....do....	2,514,400	2,297,500	2,610,400
Silk broad stuffs.....do....	16,158	33,298	49,120
Apparel, waterproof.....dollars..	44,620	30,989	23,690
Other goods. .....do....	1,146,002	948,597	1,169,357

Shipments of the leading articles of metal goods and machinery for the three months amount to $4,988,131 against $3,587,895 for the corresponding period of last year. A comparison of quantities, as far as available, for the three months is as follows:

Article.	1904.	1905.	1906.
Pig iron.....tons..	.....	7,365	13,845
Wrought iron (bars, rods, angles, etc.).....do....	6,156	6,510	5,930
Cast iron and manufactures, unenumerated .....do....	788	826	949
Wrought iron and manufactures, unenumerated .....do....	1,054	94,	927
Rails.....do....	531	3,418	621
Railroad iron and steel, unenumerated .....do....	618	383	326
Wire and wire manufactures .....do....	2,808	3,815	5,335
Galvanized iron .....do....	14,267	11,308	14,530
Tin plates.....do....	4,272	3,244	4,481
Hoops and strips.....do....	567	413	577
Tubes and pipes and fittings.....do....	2,712	3,815	6,402

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Article.		1904.	1905.	1906.
Nails, screws, and rivets	tons	.....	700	803
Bolts and nuts	do	.....	601	636
Bedsteads	do	.....	332	431
Steel ingots, etc	do	36	189	45
Steel castings	do	.....	34	62
Steel forgings	do	.....	3	17
Steel bars, angles, etc	do	2,219	2,334	3,643
Manufactures of steel or steel and iron unenumerated	do	270	318	696
Copper manufactures	do	356	121	284
Cutlery	dollars	129,323	124,645	139,396
Hardware	hundredweight	15,726	16,913	19,681
Locomotives	dollars	80,210	49,750	7,474
Steam engines, agricultural	do	60,027	22,993	60,139
Other steam engines	do	183,797	150,263	301,723
Agricultural machinery	do	93,937	16,191	13,675
Mining machinery	do	77,717	67,600	104,878
Other machinery	do	623,681	475,846	696,985

The aggregate value of the articles stated below for the first three months of the year was $2,109,057 against $1,933,304 for the corresponding period of last year, or an increase of $175,750. Quantities for the three months compare as follows:

Article.		1904.	1905.	1906.
Beer and ale	barrels	13,870	13,835	15,595
Salt	tons	4,671	3,485	8,646
Spirits	gallons	348,117	403,756	445,276
Oil (seed)	tons	1,599	1,171	1,096
Boots and shoes	dozen pairs	25,813	24,054	24,543
Chinaware and earthenware	hundredweight	36,198	38,984	33,311
Paper	do	64,580	60,704	60,029
Bags and sacks	dozen	1,382	3,551	22,845
Cement	hundredweight	4,742	2,928	4,035
Stationery	dollars	151,506	125,506	161,644

GOVERNMENT RESTRICTIONS.

ANTITRUST LAW PLACES POWER IN THE CUSTOMS OFFICIALS.

The regulations in Australia under the foreign commerce act will go into operation in September. According to a correspondent of a London paper there will be considerable trouble in enforcing the harsher provisions of the new legislation, the penalties being heavy and generally accompanied with a risk of forfeiture.

It is said that "in attempting to counteract the tactics of the American harvester and other trusts there is danger of the Federal legislation being pushed too far." The proposed antitrust bill virtually places the import trade in the hands of the Commonwealth customs, which has the power to determine what is a fair selling price.

The minister for trade and customs is authorized to appoint a board of three persons to investigate a complaint that imported goods are offered for sale "in unfair competition with any Australian goods," and if the board reports that "the imported goods do or probably will compete unfairly with Australian goods, the governor-general may prohibit the importation of the imported goods either absolutely or under such conditions and restrictions as he deems just." [A copy of the bill can be seen at the Bureau of Manufactures.]

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LIFE INSURANCE.

PROJECTED LEGISLATION FOR FOREIGN COMPANIES.

Consul-General John P. Bray, of Melbourne, reports that the prime minister of Australia has publicly announced that it is the intention of the government to introduce a bill imposing drastic restrictions for the protection of Australian policy holders in foreign life insurance companies.

It is intended by the bill that all possible liabilities of a foreign company in Australia shall be covered by Australian assets and that such assets shall not be withdrawn until all engagements have been fulfilled. This bill is aimed at the three largest American companies, which are practically the only foreign companies transacting life insurance in Australia, and which, up to the present, have issued 29,967 policies in Australia and New Zealand, assuring an amount of $55,964,750, on which the premiums amount to $2,238,590 annually.

OPERATIONS OF A HOME CONCERN.

The fifty-seventh annual report of the leading home life assurance company, The Australian Mutual Provident Life Society, which has just been issued, shows remarkable progress. During the year 1905, 15,866 policies were issued, assuring $19,833,489. The number of policies at present in force is 197,851, assuring $269,942,424, and bonus additions amount to $54,821,083. Premiums income for the year amounted to $8,946,880, and that from interest and dividends to $4,622,746, which, with some minor items, give a total income of $13,598,125. After providing for claims ($5,885,691), surrenders ($1,585,427), and other items, an addition of $4,165,461 is made to the accumulated funds, which are thus raised to $104,255,419. The total amount of claims paid since the establishment of the society in the year 1849 is $80,770,891. The expenses of management during the year absorbed 13.64 per cent of the premium receipts, and the rate of interest realized was within a fraction of 4½ per cent on the funds invested.

NEW ZEALAND.

DIVISION OF FOREIGN TRADE.

New Zealand's imports for 1905, with the exception of 16 per cent, came under the preferential tariff rates from British possessions and the United Kingdom, the latter supplying 60 per cent. Of the exports, 77 per cent went to the United Kingdom and 16 per cent to other British possessions. The United States supplied 11 per cent of the imports and took nearly 5 per cent of the exports direct and a larger percentage of the wool from Great Britain. Of late years the island has increased her imports of manufactured goods from the United States and Germany.

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LEATHER INDUSTRY.

PROGRESS IN THE WORLD'S MARKETS.

TRADE OF UNITED STATES, GREAT BRITAIN, AND GERMANY.

STEADY GROWTH IN EXPORTS—BOOTS AND SHOES IN POPULAR FAVOR—PERSISTENT EFFORTS TO IMITATE AMERICAN METHODS—CUSTOMS RATES OF ALL COUNTRIES.

The story of leather exports from the United States will be found in the annexed tables. It is interesting to note that in 1892, only fourteen years ago, the total exports of leather and its manufactures amounted to only a little over $12,000,000. To-day it aggregates $40,000,000, and is increasing so rapidly that the $50,000,000 mark is fairly in sight. For the fiscal year ended June 30, 1906, our exports of leather of all kinds aggregated $40,642,858, and of this amount $9,142,748 represents boots and shoes. The table which follows shows in detail the exports for the calendar year 1905, and the markets to which exported. To illustrate the progress made and the present volume of the trade, comparison is made with the figures for the calendar year 1900.

Whither exported.	1900.	1905.	Increase.	Decrease.
LEATHER.				
Sole leather:				
United Kingdom	$4,960,378	$4,455,372	.....	$505,006
Japan	386,745	3,406,774	$3,020,029	.....
Belgium	.....	231,218	231,218	.....
British North America	147,902	142,961	.....	4,941
All other countries	1,028,515	452,865	.....	575,650
Total sole leather	6,523,540	8,689,190	3,251,247	1,085,597
All other kinds of leather:				
Kid, glazed	1,556,171	1,402,786	.....	153,385
Patent or enameled	108,188	166,432	58,244	.....
Splits, buff, grain, and other kinds of upper leather.	11,750,615	16,185,805	4,435,190	.....
All other leather	1,359,025	1,912,679	553,654	.....
Total leather other than sole	14,773,999	19,667,702	5,047,088	153,385
All other kinds of leathers exported to:				
Europe—				
United Kingdom	9,533,691	10,954,009	1,420,318	.....
Germany	851,703	1,444,756	593,053	.....
Netherlands	.....	1,085,113	1,085,113	.....
France	472,826	944,142	471,316	.....
Belgium	.....	548,870	548,870	.....
All other countries	2,096,927	814,105	.....	1,282,822
Total to Europe	12,955,147	15,790,995	4,118,670	1,282,822

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Whither exported.	1900.	1905.	Increase.	Decrease.
LEATHER—continued.				
All other kinds of leathers exported to—Continued.				
America—				
British North America	$649,468	$777,220	$127,752	
Mexico	28,837	98,085	69,248	
Central America	38,117	158,455	120,338	
South America—				
Argentina	101,901	306,064	204,163	
Brazil	99,502	133,486	33,984	
All other South America	70,829	219,345	148,516	
West Indies—				
Cuba	42,464	267,530	225,066	
Other West Indies	40,642	85,293	44,651	
Total to America	1,071,760	2,045,478	973,718	
Asia	84,644	1,239,585	1,154,941	
Australasia	634,128	531,569		$102,559
Africa	28,320	60,075	31,755	
Total leather, other than sole	14,773,999	19,667,702	6,279,084	1,385,381
LEATHER MANUFACTURES.				
Boots and shoes:				
Europe—				
United Kingdom	1,094,672	1,892,915	798,243	
Germany	142,029	393,357	251,328	
France	82,446	100,537	18,091	
All other	60,697	152,895	92,198	
Total to Europe	1,379,844	2,539,704	1,159,860	
America—				
British North America	400,021	1,059,821	659,800	
Mexico	350,964	1,434,902	1,083,938	
Central America	167,129	318,859	151,730	
West Indies	572,906	2,060,324	1,487,418	
South America	130,340	323,804	193,464	
Total to America	1,621,360	5,197,710	3,576,350	
Asia	44,568	308,161	263,593	
Australasia	1,338,416	385,652		952,764
Africa	139,420	218,785	79,365	
Total boots and shoes	4,523,608	8,650,012	5,079,168	952,764
Harness and saddles	479,264	541,076	61,812	
All other leather manufactures	765,955	1,398,442	632,487	
Total leather manufactures	5,768,827	10,589,530	5,773,467	952,764
Total leather	21,297,539	28,356,892	9,530,331	2,470,978
Grand total exports	27,066,366	38,946,422	15,303,798	3,423,742
NET INCREASE				
Sole leather	6,523,540	8,689,190	2,165,650	
Other leather	14,773,999	19,667,702	4,893,703	
Total leather	21,297,539	28,356,892	7,059,353	
Boots and shoes	4,523,608	8,650,012	4,126,404	
Harness and saddles	479,264	541,076	61,812	
Other manufactures	765,955	1,398,442	632,487	
Total manufactures	5,768,827	10,589,530	4,820,703	
Total leather and leather manufactures	27,066,366	38,946,422	11,880,056	

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IMPORTS.

HIDES AND SKINS, LEATHER, AND MANUFACTURES OF LEATHER.

The following table shows the quantity and value of hides and skins, leather, and manufactures of leather, including gloves, imported into the United States during the calendar years 1904 and 1905, and countries by which importations were made:

	1904.		1905.	
	Quantities.	Values.	Quantities.	Values.
Hides and skins, other than fur:				
Goatskins.....pounds..	95,447,448	$25,962,620	102,940,811	$28,506,937
Hides of cattle.....do....	91,686,817	11,969,718	137,612,360	18,384,650
All other.....do....	113,690,977	19,684,472	141,587,241	26,535,831
Total.....do....	300,825,242	57,616,810	382,140,412	73,397,418
Imported from—				
United Kingdom.....do....	31,516,319	5,545,062	45,920,714	8,573,223
France.....do....	20,291,382	4,076,826	36,501,221	6,790,177
Germany.....do....	19,419,241	4,154,598	24,568,714	4,831,644
Other Europe.....do....	49,812,593	9,561,355	65,096,741	12,524,943
British North America.....do....	25,019,384	2,384,523	31,308,788	3,294,003
Central America.....do....	4,032,297	654,456	3,204,875	561,332
Mexico.....do....	15,342,728	3,279,561	18,732,191	3,804,087
West Indies and Bermuda.....do....	1,991,939	412,236	2,391,126	520,117
South America.....do....	59,742,723	11,808,606	67,222,253	13,403,457
East Indies.....do....	43,583,637	8,717,310	54,539,470	11,562,207
Other Asia and Oceania.....do....	26,437,393	6,243,168	25,390,961	6,177,163
Africa.....do....	3,605,606	789,109	7,263,368	1,550,065
Total.....do....	300,825,242	57,616,810	382,140,412	73,397,418
Leather, and manufactures of:				
Band or belting, and sole leather.....		55,356		107,265
Calfskins, tanned, dressed, patent, enameled, and japanned.....		672,918		691,345
Skins for morocco.....		2,136,824		2,311,617
Upper leather, dressed, and skins, dressed and finished.....		2,196,880		2,982,823
Total.....		5,061,978		6,093,050
Manufactures—				
Gloves, of kid or other—				
Imported from—				
Belgium.....		66,133		92,781
France.....		1,721,942		2,152,270
Germany.....		1,791,286		2,024,215
Other Europe.....		1,056,564		1,154,294
Other countries.....		838		877
Total.....		4,636,763		5,424,437
All other.....		1,171,473		1,435,032
Total manufactures of.....		5,808,236		6,859,469
Total leather, and manufactures of.....		10,870,214		12,952,519

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GREAT BRITAIN'S TRADE.

INCREASE IN EXPORTS ALONG THE WHOLE LINE.

The annexed table shows the value of Great Britain's exports in leather and its manufactures in the years 1900 and 1905. It exhibits a fair percentage of increase in the five years, every division of the trade showing an advance.

Description and whither exported.	1900.	1905.	Increase.	Decrease.
LEATHER.				
TANNED, TAWED, OR DRESSED.				
Foreign countries:				
France	$1,612,800	$3,103,900	$1,491,100	.....
Germany	1,688,800	1,857,600	168,800	.....
Belgium	799,400	1,105,600	306,200	.....
United States	498,200	671,710	173,500	.....
Netherlands	551,800	670,400	118,600	.....
Russia	179,600	294,500	114,900	.....
Italy	82,800	169,900	87,100	.....
Sweden	121,200	156,200	35,000	.....
Brazil	87,700	124,100	36,400	.....
All other countries	389,200	784,300	395,100	.....
Total to foreign countries	5,961,500	8,888,200	2,926,700	.....
British possessions:				
British South Africa	231,300	387,000	155,700	.....
British India	201,100	324,200	123,100	.....
Australasia	342,200	314,400	.....	$27,800
Canada	118,800	232,200	113,400	.....
British West Indies	69,700	49,700	.....	20,000
All other	80,700	86,200	5,500	.....
Total to British possessions	1,043,800	1,393,700	397,700	47,800
Total exports of leather	7,005,300	10,281,900	3,324,800	47,800
BOOTS AND SHOES.				
Foreign countries:				
France	174,200	462,300	288,100	.....
Netherlands	236,900	199,500	.....	37,400
Argentine	87,600	110,000	22,400	.....
Egypt	49,200	105,100	55,900	.....
Portuguese East Africa	39,900	198,300	158,400	.....
Germany	69,200	74,000	4,800	.....
Belgium	49,200	66,300	17,100	.....
Chile	42,900	56,500	13,600	.....
Peru	44,800	52,600	7,800	.....
All other	285,000	155,400	.....	129,600
Total to foreign countries	1,078,900	1,480,000	568,100	167,000
British possessions:				
Cape of Good Hope	2,252,300	3,310,200	1,057,900	.....
Natal	741,200	1,517,100	775,900	.....
Australasia	1,854,100	1,457,500	.....	396,600
British India	505,200	834,700	329,500	.....
British West Indies	306,600	221,500	.....	87,100
British West Africa	33,100	174,300	141,200	.....
All other possessions	424,600	166,500	.....	258,100
Total to British possessions	6,119,100	7,681,800	2,304,500	741,800
Total exports of boots and shoes	7,198,000	9,161,800	2,872,600	908,800
SADDLERY AND HARNESS.				
Foreign countries:				
United States	237,600	351,400	113,800	.....
Argentina	78,900	116,300	37,400	.....
Brazil	67,200	101,200	34,000	.....

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Description and whither exported.	1900.	1905.	Increase.	Decrease.
LEATHER—Continued.				
SADDLERY AND HARNESS—continued.				
Foreign countries—Continued.				
Germany	$39,900	$41,600	$170	.....
Uruguay	24,000	40,400	16,400	.....
Belgium	36,600	34,600	.....	$2,000
Chile	24,300	34,600	10,300	.....
All other countries	240,500	321,400	80,900	.....
Total to foreign countries	749,000	1,041,500	294,500	2,000
British possessions:				
Australasia	761,700	577,200	.....	184,500
British India	159,600	271,500	111,900	.....
Cape of Good Hope	344,600	232,800	.....	111,800
Natal	149,500	163,800	14,300	.....
Canada	37,600	85,700	48,100	.....
British West Indies	43,400	55,200	11,800	.....
All other possessions	77,900	99,600	21,700	.....
Total to British possessions	1,574,300	1,485,800	207,800	296,300
Total exports of saddlery and harness	2,323,300	2,527,300	502,300	298,300
GLOVES.[a]				
Foreign countries:				
United States	[a]564,500	755,700	191,200	.....
France	152,400	152,400	.....	.....
Germany	54,100	66,800	12,700	.....
All other countries	73,000	83,200	10,200	.....
Total to foreign countries	844,000	1,058,100	214,100	.....
British possessions:				
Canada	89,500	151,900	62,400	.....
Australasia	51,700	52,100	400	.....
All other possessions	45,700	54,400	8,700	.....
Total to British possessions	186,900	258,400	71,500	.....
Total of gloves	1,030,900	1,316,500	285,600	.....
ALL OTHER LEATHER MANUFACTURES.				
Foreign countries:				
Russia	18,600	420,500	401,900	.....
Germany	261,300	279,800	18,500	.....
United States	468,200	190,800	.....	277,400
Egypt	40,000	182,100	142,100	.....
Brazil	14,200	128,500	114,300	.....
China	43,900	132,900	89,000	.....
Belgium	126,000	121,600	.....	4,400
France	219,500	94,900	.....	124,600
All other countries	247,800	848,100	600,300	.....
Total to foreign countries	1,439,500	2,399,200	1,366,100	406,400
British possessions:				
British India	142,100	786,000	643,900	.....
Australasia	361,700	299,800	.....	61,900
Cape of Good Hope	172,800	263,300	90,500	.....
Canada	97,000	158,600	61,600	.....
Natal	72,000	138,800	66,800	.....
All other possessions	48,900	213,500	164,600	.....
Total to British possessions	894,500	1,860,000	1,027,400	61,900
Total all other manufactures	2,334,000	4,259,200	2,393,500	468,300
RECAPITULATION.				
Leather:				
To foreign countries	5,961,500	8,888,200	2,926,700	.....
To British possessions	1,043,800	1,393,700	397,700	47,800
Total	7,005,300	10,281,900	3,324,400	47,800

[a] The exports of gloves were not specially designated by countries until 1903, which year is given.

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Description and whither exported.	1900.	1905.	Increase.	Decrease.
LEATHER—Continued.				
RECAPITULATION—continued.				
Boots and shoes:				
To foreign countries	$1,075,900	$1,480,000	$568,100	$167,000
To British possessions	6,119,100	7,681,800	2,304,500	741,800
Total	7,198,000	9,161,800	2,872,600	908,800
Saddlery and harness:				
To foreign countries	749,000	1,041,500	294,500	2,000
To British possessions	1,574,300	1,485,800	207,800	296,300
Total	2,323,300	2,527,300	502,300	298,300
Gloves:				
To foreign countries	844,000	1,058,100	214 100	.....
To British possessions	186,900	258,400	71,500	.....
Total	1,030,900	1,316,500	285,600	.....
All other leather manufactures:				
To foreign countries	1,439,500	2,399,200	1,366,100	406,400
To British possessions	894,500	1,860,000	1,027,400	61,900
Total	2,334,000	4,259,200	2,393,500	468,300
Grand total exports:			*Net increase.*	
Leather	7,005,300	10,281,900	3,276,600	.....
Boots and shoes	7,198,000	9,161,800	1,963,800	.....
Saddlery and harness	2,323,300	2,527,300	204,000	.....
Gloves	1,030,900	1,316,500	285,600	.....
All other manufactures	2,334,000	4,259,200	1,925,200	.....
Total	19,891,500	27,546,700	7,655,200	.....

IMPORTS.

The various countries from which Great Britain draws her supply of leather and purchases shoes and other manufactures of leather will be found in the annexed table, which covers the calendar years 1900 and 1905:

Countries of supply.	1900.	1905.	Increase.	Decrease.
LEATHER.				
Undressed:				
British India	$13,717,300	$10,892,700	.....	$2,846,600
United States	5,236,400	4,790,100	.....	446,300
Australasia	3,413,000	1,452,200	.....	1,960,800
Canada	226,900	1,289,100	$1,062,200	.....
Germany	459,800	536,400	76,600	.....
Turkey	214,600	241,000	26,400	.....
Belgium	184,900	220,500	35,600	.....
France	98,800	194,300	95,500	.....
All other countries	713,600	453,100	.....	260,500
Total exports	24,265,300	20,069,400	1,296,300	5,492,200
Dressed:				
United States	9,145,800	9,370,400	225,100	.....
France	4,554,000	3,492,700	.....	1,061,300
Netherlands	1,083,700	3,007,000	1,923,300	.....
Belgium	422,900	719,300	296,400	.....
Germany	1,303,300	826,400	.....	476,900
Canada	448,700	528,600	79,900	.....
All other countries	520,000	644,200	124,200	.....
Total	17,477,900	18,588,600	2,648,900	1,538,200

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Countries of supply.	1900.	1905.	Increase.	Decrease.
LEATHER—continued.				
Varnished, japanned, or enameled:				
Netherlands	$340,300	$295,500	.....	$44,800
United States	305,600	267,600	.....	38,000
All other countries	363,000	130,700	.....	232,300
Total	1,008,900	693,800	.....	315,100
BOOTS AND SHOES.				
United States	979,200	2,147,200	$1,168,000	.....
France	874,600	639,500	.....	235,100
Netherlands	326,600	520,800	194,200	.....
Belgium	1,040,100	517,700	.....	522,400
Germany	144,100	228,300	84,200	.....
All other countries	16,200	4,200	.....	12,000
Total, boots and shoes	3,380,800	4,057,700	1,446,400	769,500
GLOVES.				
France	3,688,100	3,814,800	126,700	.....
Belgium	1,956,500	1,516,000	.....	440,500
Germany	475,100	1,441,700	966,600	.....
Netherlands	2,359,600	670,000	.....	1,689,600
All other countries	8,900	300	.....	8,600
Total gloves	8,488,200	7,442,800	1,093,300	2,138,700
ALL OTHER LEATHER MANUFACTURES.				
Netherlands	1,601,100	1,865,500	264,400	.....
Belgium	613,700	536,900	.....	76,800
United States	161,600	162,100	500	.....
France	286,700	135,600	.....	151,100
Germany	186,400	105,600	.....	80,800
All other countries	28,200	37,400	9,200	.....
Total all other	2,877,700	2,843,100	274,100	308,700
RECAPITULATION.				
Leather:			*Net increase.*	*Net decrease.*
Undressed	24,265,300	20,069,400	.....	4,195,900
Dressed	17,477,900	18,588,600	1,010,700	.....
Varnished, japanned, etc	1,008,900	693,800	.....	315,100
Total leather	42,752,100	39,351,800	.....	3,400,300
Boots and shoes	3,380,800	4,057,700	676,900	.....
Gloves	8,488,200	7,442,800	.....	1,045,400
All other manufactures	2,877,700	2,843,100	.....	34,600
Total manufactures	14,746,700	14,343,600	.....	403,100
Grand total	57,498,800	53,695,400	.....	3,803,400

GERMANY.

VALUE OF IMPORTS AND EXPORTS.

The progress that has marked the leather industry in this and other producing countries is apparent in Germany. The value of leather merchandise of every description imported in 1900 was $15,611,637 and in 1904 $20,385,176. The exports in 1900 aggregated $36,000,000 and in 1904 $44,000,000. The following table shows the value of

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leather and its products imported in 1904, and relative quantities and kinds supplied by the principal countries:

Description.	Value.
Unspecialized:	
Belgium	$1,462,000
France	568,000
Great Britain	1,297,100
United States	925,820
Russia	229,432
Holland	151,844
Austria-Hungary	136,612
Switzerland	102,340
Japan	67,592
Denmark	14,518
Italy	10,710
All other	32,012
Total	4,997,980
Glove leather:	
France	1,170,960
Great Britain	516,416
United States	466,480
Belgium	55,930
Denmark	17,136
Italy	48,790
Holland	34,270
Austria-Hungary	198,254
Russia	19,754
Switzerland	15,708
All others	73,302
Total	2,618,000
Sole leather:	
Chile	2,803,878
Great Britain	236,810
Austria-Hungary	191,590
Switzerland	6,188
United States	86,870
All other	53,664
Total	3,379,000
Fine leather shoes:	
Italy	95,914
Austria-Hungary	1,061,480
United States	238,000
Great Britain	92,106
France	85,442
All other	183,858
Total	1,756,800
Coarse shoes:	
Austria-Hungary	$77,588
Great Britain	15,946
All other	29,988
Total	123,522
Saddle, belt, and bag:	
Great Britain	117,572
United States	88,774
France	59,024
Belgium	74,970
All other	73,780
Total	414,120
Belts wholly and partly of leather:	
Belgium	65,450
Great Britain	49,742
France	25,466
United States	29,750
All others	29,940
Total	201,348
Leather goods except albums:	
Belgium	257,040
France	150,416
Great Britain	73,542
United States	14,994
All other	146,608
Total	642,600
Fine leathers, etc.:	
France	70,924
Germany	59,262
Austria-Hungary	62,118
United States	11,662
All others	45,934
Total	249,900

EXPORTS.

The following table shows the value of exports for 1904 compared with 1900:

	1900.	1904.
Glove leather	$13,000,000	$21,000,000
Miscellaneous	3,332,000	4,285,000
Sole leather	1,008,766	1,594,600
Saddle, bag, etc., leathers	1,428,000	714,000
Belting, etc		647,360
Rough shoes, etc		602,000
Fine shoes	1,666,000	1,458,000
Articles of fine leather	4,998,000	2,618,000
Articles partly leather	2,667,000	3,649,000
Gloves, all leather	6,476,000	4,280,000
Leather cut for gloves		119,714

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ALLEGED ADULTERATIONS.

UNITED STATES SAID TO BE CHIEF OFFENDER.

DISCUSSION BY THE BRITISH ROYAL SANITARY INSTITUTE—SALE OF AMERICAN SHOES IN GREAT BRITAIN.

Frank W. Mahin furnishes an interesting report on the sale of American boots and shoes in Great Britain, and recites utterances of British business men in regard to alleged adulteration of leather received from the United States that should be given thought by our manufacturers of leather as well as those engaged in the boot and shoe trade. Mr. Mahin writes:

The invasion of Great Britain by American manufacturers of boots and shoes has put British manufacturers very much on the alert to check it by producing equally attractive and serviceable footwear. They have always contended that British footwear was more durable, because better made in both material and careful workmanship than the American article, while admitting that the latter was smarter in appearance and more calculated to capture the popular fancy. These manufacturers have not only adopted American lasts and machinery, but are studying the methods of Americans in their own factories. Mr. E. Swaysland, who is described as "an authority on technical shoe instruction," recently made a special tour of the United States to study American methods on behalf of the Northamptonshire education committee, and has issued a report on the subject. He is convinced that the Americans are far superior to the British "in business, push, and sharpness, and the completeness of their organization is in striking contrast to the defects in many English factories."

Mr. Swaysland further says in his report:

"Another striking characteristic of American operatives is their whole-hearted belief in their country, system, labor, and everything that is theirs—a fine spirit which makes for excellence, and all the more noticeable compared with sluggishness and comparative lack of pride in the work of too many English workmen." Notwithstanding, he believes that the Americans possess no direct advantage over the British "in the production of footwear, and are seriously handicapped in competing with the English by the fact that the American cost of production is 5 per cent more." He concludes that "the English manufacturers need have no immediate fear of an American invasion of footwear to any serious extent, but the prospect of competition is beneficial in keeping our manufacturers more alert."

ALLEGED ADULTERATION OF AMERICAN LEATHER.

As previously reported from this consulate, the sale of American foot wear is not advancing in this country, if the local situation is a criterion. Dealers take pains to utilize any instance of ill-made American goods, while the factories are Americanizing their output by the use of American appliances. Evidently another impediment is the suspicion cast upon the American product by charges that Ameri-

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can leather is systematically adulterated. It is a fact that considerable quantities of leather imported from the United States to Leicester, the center of the English shoemaking industry, have been returned in recent years as unfit for the intended purpose. At a congress of the Royal Sanitary Institute, held the second week of July, the subject of adulterated leather was considered at length, and the time given to the American product indicated that the United States was considered the chief offender. Mr. F. Sparke Evans, of Bristol, discoursing on the manufacture of sole leather from a hygienic point of view, severely arraigned the American product, though he laid the blame partly on the British public, whose one idea was cheapness, he said, which encouraged inferior production. According to Mr. Evans, the adulteration of American leather was of somewhat recent growth, for until the last ten years the American tanner had been able to meet the demand for cheap leather by the use of the hemlock-tree bark. This tree having been lavishly consumed without replanting, the speaker said, the tanner had now to resort to other substances and methods and used weight-giving adulterants.

METHODS OF ADULTERATION.

Mr. Evans mentioned several ways of adulterating leather after the tanning process was finished. One method placed it in a revolving drum containing a warm glucose solution. Another way was to make a sirup and paste it upon the flesh side of the hide. "To the uninitiated," the speaker continued, "glucose in leather was somewhat difficult to detect, especially in dry weather, but on exposure to damp it soon manifested itself if any considerable quantity was present. The leather then began to feel sticky, owing to the glutinous matter coming out. Cases had been known where bales of American splits, or upper leather, could not be unrolled, the skins being stuck together. One leather merchant, suspecting that a shipment from America was not quite right, decided before sending out the consignment to have some of it made up in boots. A pair of those were hanging in his office, and were, as he said, the best weather prophet he ever had—a sure signal of approaching rain being the exudation of moisture, owing to the glucose present coming out in solution."

RESULTS OF INVESTIGATION.

Mr. Evans said that a recent investigation by English tanners into the extent to which American leather was adulterated, eighteen samples being tested, disclosed an average of 7 per cent glucose and 2 per cent Epsom salts. "On this average," he continued, "and on the basis of leather imported from the United States for the year ended June 30, 1905, a total of 24,090,449 pounds, at an average cost of 9.3d. (19 cents) per pound, this 9 per cent of useless and even deleterious adulterant cost the British £84,015 8s. 6d. ($408,861). The weight of the glucose would be 753 tons, which, at £11 10s. ($55.96) per ton, gives £8,659 ($42,139). The Epsom salts would weigh 215 tons, and, at £3 5s. ($15.82) per ton, gives £698 ($3,397). In fact, we paid £84,000 for what cost £9,000." Shoes made of leather so adulterated, the speaker insisted, could not be waterproof.

Adulteration is not limited to American leather, it appears, for Mr. Evans referred to a sample from New Zealand which could not stand

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the water test. After the test a white deposit like mildew formed on it, which, analysis showed, consisted of crystalline sodium sulphate.

Another speaker argued that this adulteration, being mostly in sole leather, worn nearest the foot, was hygienically very dangerous.

Even if adulterated leather never enters into American footwear, statements like these from the Sanitary Congress must seriously prejudice its sale in this country.

GLAZED KID AND BOX CALF.

MARKET IN FRANCE FOR AMERICAN PRODUCT.

Consul Louis Goldschmidt writes from Nantes on opportunities for the sale of American leather in France:

There is an excellent market in France for American glazed kids and box calfs, the American product being highly esteemed both in black as well as colored. Probably no other country in Europe employs so large a quantity of these goods, and the manufacture of shoes from these grades of leather has increased enormously within the last five years. Practically no men's shoes were made a few years ago in France from glazed kid, but to-day they are worn by everybody for dress shoes. The same, to a certain degree, may be said of box calf. In spite of this only a comparatively small amount of these goods are imported into France from the United States, the reason being that the American manufacturer pays very little attention to the requirements of the French trade.

BAD METHODS OF AN AMERICAN HOUSE.

About a year ago a young merchant of this city, at the suggestion of this consulate, became interested in this trade, seeing an excellent opportunity in importing American goods of this kind. After opening correspondence with several American manufacturers he started by representing a certain American concern and selling their products to various manufacturers of shoes and merchants. His success was immediate, and the orders he received were large and numerous, thus insuring an excellent business. After a few months' dealing he was obliged to give up this trade because the American concern paid no attention to the details of the demand and refused to submit to certain exigencies which are peculiar to local demand everywhere. The American manufacturer wanted to sell his products according to his own ideas of weight, color, assortment of sizes, while the French trade naturally tried to obtain goods that met their own ideas in these particulars.

Another trouble with the American manufacturer was that he insisted upon being paid for his goods in New York before delivery, thus, in case where goods were unsatisfactory, making it impossible for the purchaser to make any complaint, however just, and sometimes leaving certain shipments on the hands of the purchaser without redress. Similar experiences happened to this same firm in dealing with another American concern, and they have almost decided to abandon the American market and to try to do business with German goods.

AMERICAN GOODS AND GERMAN SALESMEN.

A few days ago the representative of this concern said to me: "We know that the American article is superior to the German, but the

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Germans try in every possible way to satisfy the demands of their customers. We do not care to be direct purchasers ourselves; as the French manufacturer always prefers dealing directly with the producer, thus he knows he saves the heavy profits of the middleman, we are willing to act as agents, working for a certain percentage on the sales we effect, but we have found it impossible to continue with the Americans, as they try in every way to force the customers to buy what they make instead of making what the customers ask for. In France there is considerable demand for light colors in glazed kids, such as grays, light tans, champagne color, etc. The American, however, pays no attention to these demands, but wants you to buy blacks and tans, and makes all sorts of difficulties when asked to furnish the colors that the trade wants."

Although German products are admittedly to be inferior in quality to the better grades of these American products, the German manufacturer lends himself readily to the demand of the trade, which is an excellent one and worth striving to obtain. The German manufacturer sends able salesmen all over the French market. These men visit the smallest concerns, and will fill the smallest order for skins in exactly the shades, weights, and sizes that the customer may ask for. A few weeks ago a German salesman visited the local trade carrying with him a stock of skins ready to be delivered. A truck team accompanied him from customer to customer, and the goods were immediately delivered to the purchaser after examining and selecting such as he wanted. While this is not exactly what the French customer likes, as he has certain ideas of commercial dignity, he can not help admiring the persistence and the efforts made by the Germans in securing trade, and whether he likes it or not buys from the German. The German will sell his goods delivered at the customer's place of business, duty and freight prepaid, and the customer thus knows exactly what the goods cost him when he gives the order.

DUTY ON SKINS.

The duty on manufactured skins of all kinds, on entering into France from the United States, is 90 francs ($17.37) per 100 kilograms. The same skins coming from Germany pay 60 francs ($11.58). However, this difference in the tariff is not an appreciable item with the purchaser, as the difference in cost of the skins, including freight from the United States and duty, does not amount to over 5 centimes (1 cent) per square foot on glazed kids. The quality of the American product being recognized as superior, this difference in the cost is not generally considered. It is simply the lack of willingness to furnish what is wanted, to extend a reasonable credit (the German gives sixty days, plus the month of delivery, making ninety days' credit), that makes business with American concerns seemingly impossible to the French purchaser.

ANNUAL CONSUMPTION.

The annual consumption in France of glazed kids of different kinds is, according to reliable information obtained, about $10,000,000; nearly the same amount of box calf is employed. There is only one manufacture of glazed kid of consequence in France, and nearly all of this product is imported.

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The principle towns in France (outside of all the large cities) where a good market exists, owing to extensive shoe manufacture, are Limoges, Haute Vienne; Fougères, Ille & Vilaine; Romans, Drome; Angers, Maine & Loire; Tours, Inure & Loire; Blois, Loire & Cher; Toulouse, Haute Garonne; Cholet, Maine & Loire.

This market should not be neglected by our manufacturers, as it would require no special efforts on their part to obtain the trade. All that is needed is an intelligent agent who might sell the goods wanted, and a willingness on the part of the American manufacturer to make what the French trade asks for. If this be not done Americans will lose the market which will be entirely supplied by the German tanners.

At the outset I made reference to a firm having been engaged in this trade with America. I am told by the firm that they are ready to enter into business relations with an American manufacturer, whom they might represent as agents, upon a commission basis, providing the manufacturer is willing to comply with the demands of this market. They claim that they can give undoubted financial references and are ready under these conditions to reassume business with America. This consulate will furnish the name of the firm upon application.

HIDES FROM BRAZIL.

BULK OF EXPORTS GOES TO EUROPE.

According to Consul-General Anderson, of Rio de Janeiro, the exports of hides from Rio Grande do Sul to the United States seems to vary considerably, the record so far this year indicating a falling off as compared with previous years. For the past seven years, during the period from January 1 to June 1, the export record shows as follows:

Year.	Salted hides.	Dry hides.	
	Europe.	Europe.	United States.
1906	241,876	136,033	5,000
1905	207,798	185,387	8,571
1904	345,005	115,180	23,136
1903	240,363	140,689	5,985
1902	215,928	107,768	51,445
1901	135,300	143,658	34,203
1900	125,294	35,640	.....

The shipments do not show any salted hides going to America. The matter of freight accommodations has considerable to do with the variation in this movement of hides, but the market in the United States evidently regulates the imports therein very closely, there being few imports on a speculative basis.

SWITZERLAND.

SALES OF SHOES IN CENTRAL EUROPE—KIND NEEDED.

A special agent of the Treasury furnishes the following report on the trade of Switzerland, and describes the kind of footwear that is needed in central Europe:

In reports from consular officers, the necessity is emphasized of producing a shoe of moderate price to compete with the home indus-

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try of European countries, and to provide not only Americans in Europe with the attractive American styles of shoes at low prices, but also all classes of the European population.

The excellent style of our shoes is recognized everywhere. It is imitated, however, with great success, so that now Germany, Switzerland, and Italy manufacture, and even export, the "American make" to a considerable extent. Among these are products which approach in style the American make very closely, and which, on account of duty and freight costs, are even somewhat cheaper, and in quality are distinctly superior.

KIND OF SHOES NEEDED.

In central Europe durable, better sewed shoes are needed, with stouter soles than those which generally come from America. The climatic conditions, frequent rain and snow falls, and the often defective state of the streets, make great demands on the solidity and waterproof qualities of the shoes. The American at once takes to his goloshes in bad weather. The great mass of the European population either never use them at all, or do so only when there is snow on the ground. A very small proportion of the well-to-do classes wear them when necessary all the year round.

Important shoe manufacturers and wholesale dealers have assured me that they had nothing to fear from the American competition, in spite of superiority in form and cut, so long as the quality and durability of that competition do not improve. If the American shoe industry advances in this direction, it will without difficulty command better prices.

FOREIGN TRADE.

From January 1 to December 31, 1905, Switzerland imported $1,058,547 and exported $1,178,488 in leather shoes. The import of stuff shoes with leather soles was valued at $305,837 and the export at $239,306.

Of 5,213 quintals of leather shoes (1 quintal = 220 pounds) imported by Switzerland last year Germany supplied 3,813 quintals and the United States 83 quintals. Switzerland's exports of leather shoes is shown in the following table:

France	$423,828
England	268,656
Egypt	203,422
Germany	125,450
Chile, Peru, and Central America	50,180
La Plata	69,480

In stuff shoes with leather soles the exports were:

England	$180,069
Africa	19,300
South America	21,230

The foregoing figures are taken from the official publications of the Swiss customs direction in chief. Figures showing weight, and not values, are given for the import.

CANADA.

MARKET NOT PROPERLY SUPPLIED.

Consul E. A. Wakefield reports from Orillia that American boots and shoes are not sold in that section of Canada as freely as they might

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be if more energetic business measures were adopted. He calls atten tion to the following points:

The American sample display has been much inferior in size at least to the Canadian lines. Canadian shoes are being more extensively advertised locally. Annoying delays are experienced by dealers in getting small orders promptly filled in the United States. In districts similar to this, where there are no cities, it is particularly necessary to give prompt attention to small orders. The local manufacturer attends promptly to orders, large or small. Trade lost by failure to fill orders is difficult to regain. Business is particularly good in this section and prices are high, consequently this is an opportunity to push the boot and shoe trade.

BUSINESS BY MAIL.

There are several stores in the district selling American shoes and quite a mail-order business prevails at present; but the stores do not carry complete stocks of either styles or sizes, and the mail order is not always satisfactory. From my observation the best results would be obtained if a manufacturer of ladies' shoes, one of men's, and another of children's shoes would combine in securing a good substantial business man in each of the larger towns to sell their shoes exclusively. For the past two or three years the trade in American shoes has remained about the same, without much effort being made to increase it. Including mail-order business it will amount to about $10,000 per annum at present. [The declared exports of boots and shoes from the United States to the Dominion for the fiscal year ending June 30, 1901, amounted to $433,691; in 1902, to $510,374; in 1903, to $646,250; in 1904, to $852,522; in 1905, to $1,013,142, and in 1906, to $1,114,000.]

EXPORT OF SHOES.

INCREASE OF MORE THAN ONE-HALF MILLION PAIRS.

The increase in the export of shoes by the United States in the year ended June 30, 1906, over the preceding year was 356,550 pairs and the increased value $1,085,051, as will be seen by the following table:

Country.	1905.		1906.	
	Quantity.	Value.	Quantity.	Value.
	Pairs.		*Pairs.*	
United Kingdom	921,831	$1,943,845	866,211	$1,862,747
Belgium	19,315	40,806	32,034	53,272
France	21,292	64,723	40,220	126,239
Germany	137,229	327,784	227,565	387,025
Netherlands	6,686	11,339	8,241	14,680
Other Europe	43,546	84,111	82,733	147,181
British North America	614,001	1,038,915	667,423	1,150,682
Central American states and Honduras	215,892	275,858	313,308	418,335
Mexico	683,840	1,116,598	848,398	1,529,364
West Indies and Bermuda	1,911,210	1,806,780	1,945,382	2,268,393
Colombia	82,251	113,264	37,749	55,260
Other South America	123,866	212,213	159,800	308,050
British Australasia	256,463	499,702	208,165	367,458
Philippine Islands	102,329	168,032	100,733	180,213
Other Asia and Oceanica	46,186	82,599	51,045	85,301
British Africa	118,653	247,533	70,224	156,370
All other Africa	10,941	23,114	12,874	31,603
Other countries	168	491	144	575
Total	5,315,699	8,057,697	5,672,249	9,142,748

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COTTON.

INTERNATIONAL CONGRESS.

EUROPE DEBATES ON SUPPLY.

REPRESENTATIVES FROM TWELVE COUNTRIES—COTTON GROWING AND PACKING IN UNITED STATES DISCUSSED.

Representatives of cotton spinners' and manufacturers' associations of European countries met in annual convention at Bremen June 25 and discussed conditions of the cotton industry, special consideration having been given the growth of cotton in the United States, methods of baling, cost of transportation, etc. At the request of the Department of Commerce and Labor, Consul Henry W. Diederich furnished the annexed report on the proceedings of the congress.

The Third International Cotton Congress of Delegated Representatives of Master Cotton Spinners' and Manufacturers' Associations held its sessions here in Bremen from June 25 to June 27. There were present a large number of delegates and representatives from twelve different countries. Many carefully prepared reports and papers were read upon a variety of technical and commercial subjects. Altogether it may be said that the discussions were mainly a continuation of those held last year at the Second International Congress at Manchester, in England, and most of them referred to questions of cotton supply, cotton statistics, cotton growing, moist cotton, etc. The proceedings from first to last were highly interesting, and the free exchange of views could not fail to bring about a better understanding of the problems confronting the European cotton spinners and weavers.

CHIEF TOPIC OF DISCUSSION.

As the United States supplies about 75 per cent of all the cotton in the world it was natural that the chief topics of discussion were a number of conditions in the cotton-growing districts of our Southern States. Not many resolutions were passed in regard to these points, but an international commission was appointed to communicate with cotton exchanges and with American cotton growers and shippers, and to do all in its power to bring about a more satisfactory condition of things. It is expected that this committee will do energetic work and achieve practical results. The grievances chiefly complained of and laid at the door of American cotton merchants were twofold: First, they are charged with selling excessive amounts of moisture, or damp, in the cotton, thereby entailing a heavy loss upon the spinners, who pay for cotton and not for water. It was readily admitted that cotton, by nature, does contain a certain percentage of moisture, but

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it has not yet been possible to arrive at a scientific determination of just how much it does contain. What the spinners in Europe protest against is the excess over the normal moisture found in so many of the 7,000,000 bales of American cotton sold to them, whether it be put there intentionally or not. Undoubtedly much of the wet cotton is caused by leakages in the steam pipes of so many out-of-date compresses used in packing cotton in the ginhouses. It would seem, therefore, that this evil could be very much modified by using the latest improved machinery. Another source of the humidity in the raw material arises from exposure in rainy weather. It is a common thing for a small farmer to take his bale of cotton home on his cart, after it is ginned and loosely bound with cloth and hoops, to let it lie around in rain or shine until it suits him to sell to the dealer in town. Thus a good deal of the American cotton is "country damaged" and water-soaked from the start that might be saved by a little precaution on the part of the planters.

METHOD OF BALING CONDEMNED.

Another subject earnestly commented on was one allied to the foregoing, and referred to the imperfect system and reckless method of baling cotton in many districts of our Southern States and to the careless handling of it on its way to foreign markets. It was pointed out that the American bales are put up in a haphazard way and in various sizes and dimensions, and that oftentimes no attempt is made to protect them in any way at the railway depots or on the docks at the ports; in fact, that there is no warehouse or storage room available sufficient to accommodate more than a small fraction of the crop while in transit, and that therefore spinners are not surprised to find many of the bales landed in European ports in filthy and dilapidated condition, with a superfluity of heavy burlap dangling about them all tattered and torn, while the Egyptian bales reach the same market in a more compact form, of a more uniform size and weight, and with a far lighter and tidier covering.

Mr. Macalister, who recently made a personal and careful study of conditions in the American cotton fields, reported: "When a bale of American cotton leaves the ginner's press (where it is but lightly condensed) it is covered with canvas (weighing from 1¾ to 2 pounds per linear yard) and secured by six iron bands, the total weight of canvas and bands being approximately 22 to 25 pounds. When sent to the compress by the merchant exporter to be reduced in bulk for shipment, the original six bands are shortened, and one, usually two, additional bands are put on the bale. Patches of canvas are also added, which serve to cover sample holes, but which are purposely intended to bring the total weight of tare upon the bale up to the stipulated quantity allowed under the terms of the presently existing c. i. f. and 6 per cent contract." But he also commended the Southern Cotton Planters' Association for having already begun the work of constructing sheds and warehouses to protect their produce, and of improving the present methods of ginning and baling, and the better handling and care of the staple generally.

COST OF TRANSPORTATION.

Special attention was called to the great saving to be looked for in the cost of transporting the millions of bales of American cotton

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across the sea to supply the wants of the mills of Europe, if the form of the bales in shape and density be improved, so that they may be more compactly stowed in warehouses, freight cars, and on board ship. In addition, another saving would be effected if each bale would be efficiently protected with about 10 pounds less weight of tare and bands than is done at present. Besides, if the American merchants would contract to buy and sell cotton net weight, it would do away with the temptation to overload the bales with unnecessary tare.

However, I must emphasize that all these grievances, if they may be so termed, were presented in the kindliest spirit, and it was clear that the motive from which they sprang was an eager desire to find a remedy for existing evils and to work together harmoniously for all parties interested in cotton, from the grower to the consumer. That the suggestions offered all were practical and the propositions fair and that, if carried out, they will bring valuable results and enhance our reputation abroad for square dealing goes without saying.

Another subject which created considerable discussion and comment was that covering statistics, and in this connection special credit was given to our Agricultural Department for its strenuous efforts in improving the crop reports, and otherwise doing all in its power to advance the cotton-growing industry all along the line. However, it was urged that it was necessary not only to gather reliable statistics as to crops, but also as to the world's consumption of cotton. This latter point was considered to have been unduly neglected, and all spinners were called upon to aid in collating exact facts and figures on this, for it was held that the truth as to them could not help but do good to all.

COTTON GROWING IN THE COLONIES.

One of the most pronounced features of the convention were a number of reports read by delegates of various nationalities, showing what progress is being made in cotton raising in many European colonies, and a resolution was passed encouraging such efforts. However, as these facts in a general way have been fully divulged by the press in recent years, I need not recapitulate them here. It is my conviction, based on information gathered from many sources, that all these enterprises, praiseworthy as they certainly are, can not hope to materially change present conditions. What they produce is merely a drop in the bucket. Owing to lack of labor and of means of transportation progress in those far-off countries will always be very slow, and meanwhile the world's consumption of cotton grows apace at the rate of about 400,000 bales per annum. So the American cotton planter has little to fear from competition from those sources. The world will continue to look to the United States for its cotton material for clothing for many years to come. This Third International Cotton Congress of Delegated Representatives of Master Cotton Spinners' and Manufacturers' Associations, however, again reminds us that there is vast room for improvements of our cotton industry. With a steady increase in the acreage and yield of our cotton fields, with proper cultivation, with the latest improved compresses, with light material for covering the cotton, and with ample room for storage and protection, we ought to be able to offer to the world plenty of good, dry, clean cotton put up in packages or bales in as good condition as that may be found anywhere in the world.

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INDIA'S MILLS.

A GREAT INDUSTRY GROWING GREATER.

Consul William T. Fee, in the following letter from Bombay, shows that the cotton industry of India is an important one:

With the exception of agriculture itself, it is the largest industry, and with that exception, it is the only important one in which the natives themselves have a substantial share. It is represented by a paid-up capital of about $56,000,000 gold, which is largely local or native capital. After food, clothing is the next greatest human need. Cotton fabrics form practically the sole raiment of all India's millions. Nature has been wonderfully generous in her gift of raw materials to India. Her people not only can grow their own foods, but their own covering as well. With an abundance of cheap labor, raw cotton at her very door, and an enormous home consumption, India enjoys exceptional advantages for the manufacture of cotton goods. With such favorable conditions she should be one of the greatest cotton spinning and manufacturing nations in the world. Cotton is now almost entirely spun in India by machinery; hand spinning still survives in certain locations, but it is a decaying industry.

The cotton spinning and weaving industry of India is chiefly centered in the presidency of Bombay, 50 per cent of all being in the city of Bombay. Here the first mill in India was built in the early fifties. Twenty-five years later the number had increased to 56 and the spindles to nearly 1,500,000, with 13,000 looms that consumed a quarter of a million of bales of cotton annually. The shortage of the cotton crop and the resultant high prices that prevailed in the market during the period of our American civil war no doubt lent a powerful impetus to the cotton industry of India. At the present time there are now in all India 197 mills, with 15 or 20 more under construction, 5,163,000 spindles, 50,100 looms, 198,879 average daily number of hands employed, and 1,750,000 bales of cotton annually consumed. These figures show wonderful progress.

COTTON YARN PRODUCT.

The mills consume about 50 per cent of the cotton product of India and produce 590,000,000 pounds of yarn. Mr. Vithaldas Dadodardas tells us that of this quantity of yarn about 248,000,000 pounds is exported to China and other foreign countries at a value of $32,750,000, about 135,000,000 is used in the weaving mills, and about 190,000,000 is woven by hand-loom weavers, the remainder of 20,000,000 going to the manufacturers of rope and twine. In addition to this 30,000,000 pounds of yarn are imported from other countries, mostly from the United Kingdom, and consumed by the hand looms. The hand-loom industry of this country thus absorbs, in spite of its hard struggle, something like 220,000,000 pounds of yarn.

Besides the mill-spun yarn there is a quantity of hand-spun. What the amount really is in all India it is difficult to calculate. However, it is an interesting fact to note that the estimates of the amount of yarn absorbed by the hand loom is more than double the quantity used by the power looms. The yarn used by the weaving mills pro-

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duces about 550,000,000 yards of cloth, of which about 140,000,000 yards is exported to foreign countries and about 410,000,000 is left for consumption in the country. If we put down the production of the hand looms at about 900,000,000 yards we have about 1,300,000,000 yards as the quantity of "Swadeshi" or country cloth consumed at present in India.

Most every year there is more or less raw cotton imported into India, the quantity depending upon the market price in comparison to the price of Indian cotton. Last year there was imported into Bombay alone 46,813 bales of American cotton at a value of about $1,800,000. This was used in mixing with the native cotton for the purpose of spinning a finer count of yarn and in weaving a superior grade of cloth than could be done alone from the short staple variety now grown in India. Raw cotton, cotton twist, cotton yarn, and thread, are admitted into India duty free, but all other manufactures of cotton are subjected to a duty of 3½ per cent ad valorem.

LABOR AND WAGES IN BOMBAY.

The conditions and standard of labor in the cotton mills in Bombay are the lowest, at least, in any Asiatic country. In American mills quality is the unit of measure of production; in India it is quantity; quality does not count for so much. The labor is paid by the piece or pound weight. The wages of the mill agent and from him down is based on a pound percentage of the mill production. Therefore the tendency is to increase the bulk of the outturn, and another result is that long hours of day labor have been induced. It is estimated that more than $11,500,000 gold were made last year as profits by the Bombay mills. The exceptional activity that has prevailed through the industry during the past twelve months, the heavy demand in all directions, and the large profits known to have been made, running as high in some instances as 40 per cent in dividends, has quickened every available spindle and loom in India to work to its utmost capacity and to press labor to the uttermost limits.

In 1881 an act was passed by the government of India in the interest of factory hands, one of the chief features being the compulsory closure of all factories for at least four days in a month. This boon was much appreciated by the workmen, owing to the healthy respite afforded to them from their tedious and irksome work. But a new factor has been recently introduced in the shape of electric-light installations in the textile factories, which has practically nullified the respite. Since the introduction of this light the mills, which formerly used to work from sunrise to sunset, have begun working from five in the morning to eight in the evening with the same set of operatives, with only half an hour's stoppage in the middle of the day; and as the mill industry of Bombay is at present in a flourishing condition there is a growing tendency among some of the mill owners to prolong these hours of labor. This they are evidently emboldened to do, as there is no provision in the factory act above restricting the hours of employment in any one day in a factory of male operatives over the age of 14 years.

OVERWORKED OPERATIVES.

Mr. Bomanji Dinshaw Petit, an extensive employer of mill labor, says: "It is as clear as daylight that these unfortunate people must

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suffer in physique, that their crushing work must produce its deleterious effect upon their health, that their resisting capacity must gradually dwindle down, and that day by day they must grow more impotent to resist attacks of ill health and the prevalent epidemics, if they are not actually slowly ground down to death. I deliberately assert that every additional pound of production got by making them work longer than 12 hours a day is wrung out of their aching limbs." And this respected gentleman further declares that "the conditions of labor in the Bombay mills at present reveal a degrading and disgraceful spectacle of cold-blooded inhumanity."

Among the mills visited I recently inspected the "Rachel Sassoon" weaving mill on Chinchpoogly road, Bombay. This is one of a number owned by the descendants of the famous Sassoon, who years ago emigrated from Bagdad and settled in Bombay. This mill has been lately built and is said to be quite up to date in equipment of machinery, ventilation, light, and sanitary conditions. It has 2,000 looms and weaves piece goods for the Indian and China market. The mill is now running 13 hours a day, or only in daylight. I found, however, that they were installing an electric lighting plant, so that they would run in the future 15 hours a day. All labor in this mill, as is the custom in India, is paid by the piece. An average weaver working 13 hours per day for 26 days in the month would earn on the average about 26 rupees, or about $8.45.

INFERIOR COTTON GROWING METHODS.

Mr. Fee, writing on the subject of cotton growing in India, says it has been ascertained that Indian cotton seed taken to America from where it is a native to where it is an exotic, will produce a better cotton than in India, tending to longer and better staple.

On the contrary, New Orleans seed planted in India will produce cotton the first year nearly equal to its original, but every year of reproduction from the same seed will exhibit more and more deterioration until the product shall have assimilated to the native Indian cotton. The condition of the two countries, whether of climate, soil, or cultivation, causes the characteristics of cotton to determine in opposite directions. Hence, it is believed that a frequent renewal of good staple seeds in India is a necessity.

By an analysis made it is shown that an ordinary crop of cotton removes each year from an acre of soil a little more than 26½ pounds of chemical salts, containing a little more than 9 pounds of potash, nearly 9 pounds of phosphoric acid, a little more than 1 pound of sulphuric acid, 3½ pounds of magnesia, and nearly 2 pounds of lime. Hence, it is required that cotton soil should be liberally strengthened by the use of fertilizers rich in phosphates and potash and having a large amount of sulphuric acid. The native farmer in India does not seem to understand the uses of green manures, and a further appreciation of the use of fertilizers might go a long way in solving the problem of the short-staple cotton.

Endeavors to introduce foreign varieties of cotton into India have hitherto proved generally unsuccessful. If in some exceptional circumstances they did well at the first sowing, they rapidly deteriorated and the experiments proved to be failures. In most cases, however, they did not grow at all. So uniform, indeed, had been the failure

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of efforts to introduce new varieties of cotton, that the attempt had been declared practically hopeless, and hybridization among indigenous varieties is thought by many to offer the only prospect of improvement in the crop.

EGYPTIAN COTTON IN SIND.

An experiment has been undertaken by the Bombay agricultural department to grow Egyptian cotton in the Province of Sind. Two years ago Egyptian seed was distributed among selected Zemindars to be sown, under the most favorable conditions, closely following Egyptian methods, on a tract of 1,500 acres of land along the Jamrao canal in the valley of the Indus. The two varieties sown are known by the name of "Abassi" and "Mitaffiffi." Reports claim that for two seasons they have proved most satisfactory in both quantity and staple. No signs of deterioration have been observed, and it is further reported that while the local indigenous variety suffered severely from attacks of the bollworm the imported Egyptian kinds were almost immune. But so far this is but an experiment. Whether the seed will retain its superiority of staple and justify, if only in a measure, all that has been claimed for it can only be determined after a few successive seasons of trial.

It is worthy of note, however, that notwithstanding the many favorable reports circulated regarding the success of the Egyptian cotton grown in Sind, that the official returns show that the outturn of the cotton crop for the past year in that Province was below the normal yield.

NOT TO THE INTEREST OF LANCASHIRE TO IMPROVE INDIAN COTTON.

The British Cotton-Growing Association was established with the professed object of developing sources of cotton supply within the British Empire, with a view to "emancipate the Lancashire spinner from his American thraldom." Whatever may be the results of their labor elsewhere, the success of their efforts in improving the cotton staple in India are not beyond measure. A few years ago Lancashire had sufficient political influence to secure the passing of an act placing an excise duty of 3½ per cent upon cotton cloth made in India. The revenue charges, however, are remitted in case the goods are exported out of India. This action of the British manufacturers fully justifies the opinion that the interests of Lancashire are not along the lines of improving the cotton crop or cotton manufacture of India. Prior to the erection of cotton mills in India, Lancashire supplied the whole of India's wants in fine as well as in coarse cloth, and commanded also the markets of the Far East. India, by the construction of mills, has wrought a great change. Lancashire now exports to India substantially not a pound of yarn under 30's, nor any coarse fabrics, while India has practically secured the trade with China in the low-count yarn. India has been able to do this largely by reason of the raw cotton growing at the very doors of her mills.

The Indian Textile Journal, in a leading article on the subject, remarked that "India's competition with Lancashire ceases with the finer class of yarn and goods, because she can not compete if she has to import her cotton. It is easy to see, therefore, that, if India suc-

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ceeds in growing cotton suitable for the finer counts, she will deprive Lancashire of practically the whole of her existing trade this side of Suez. Supposing that a better class of cotton is produced in India, not a pound of it is likely to be exported until local requirements are satisfied, so it is hardly to be wondered at that Lancashire should not be wildly enthusiastic about improving the quality of cotton in India, which would amount to assisting at her own undoing."

LAST YEAR'S CROP.

The cotton crop of India was larger last year, 1905, than the general average. About 20,000,000 acres were planted in cotton and the yield was about 3,500,000 bales. During the year there were exported from India to other countries over 2,125,000 bales of raw cotton at a value of over $81,000,000, the four countries, Japan, Germany, Belgium, and Italy, in the order named, being the largest purchasers, they together buying nearly 1,500,000 bales of Indian cotton, while Japan alone took nearly 500,000 bales.

PRIMITIVE WEAVING.

HAND LOOMS STILL POPULAR IN INDIA.

Consul Fee writes further stating that by those who have devoted much thought to the matter it has been determined with considerable certainty that India is the original home of cotton, and from there it spread gradually westward, and possibly also eastward. Mr. Fee continues:

The manufacture of cotton in India dates back to its earliest history. There are allusions to it connected with India in the Bible. In old Sanskrit records mention is made of it being used in India nearly 3,000 years ago. At the time of Alexander's invasion of India the dress of the Hindoos was described as consisting largely of calicoes, pure white or having figures. Among the imports into Europe during the first century, enumerated by the Elder Pliny, muslins and calicoes from India are described as of superior quality.

Perhaps the earliest notice of cotton is by Herodotus about 450 B. C., who speaks of the trees of India bearing as their fruit fleeces more delicate and beautiful than those of sheep, and of the Indians using them for the manufacture of cloth. From India cotton cloth was gradually introduced into Greece, Rome, and Sicily before the Christian era. Cotton awnings were used in the theater at the Apollinarian games; and Cæsar afterwards covered the Roman forum with them, as also the sacred way from his own house to the Capitolian hill, which is said to have appeared more wonderful than the gladiatorial exhibition itself.

The cotton fabrics of the Hindoos have been excelled in fineness and excellence only by the productions of the most perfect machines of modern times. By these people were made the fine muslins known to the Greeks by a name which referred to their coming from the borders of the Ganges.

EARLY CALCUTTA FABRICS.

The city of Calicut on the Malabar coast, which with Surat was an ancient cotton mart for the supply of the more western nations of

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Asia, gave its name to the variety of the fabric known as "calico." Some qualities of these were "so fine that one could hardly feel them in the hand, and the thread when spun is scarcely discernible." A single pound of thread was spun out to a length of 115 miles. Dacca, once a considerable and wealthy city, lying to the northeast of Calcutta, sent out from its looms in the early centuries those wonderful tissues of fine muslins made from a staple too short to be woven by any machinery, named on account of their fineness "Abrawan," or "flowing water," and "Shabnam," or "evening dew."

Even after the advent of the English in India, there is an instance recorded regarding the fineness of a piece of muslin of 20 yards long and 1¼ wide, weighing only 14 ounces. With the rudest of implements the Hindoo women spun those almost impalpable threads and wove fabrics that for fineness of quality have never been successfully imitated elsewhere. With the decay of the native Hindoo courts, the chief customers, the demand ceased, and the manufacture has entirely stopped. Dacca to-day exhibits little more than a ruin.

HAND AND POWER LOOM WEAVING.

Weaving in India divides itself into two branches—hand-loom and power-loom weaving. The proportion of hand-loom made cloth to power loom is fully 2 to 1. That is, there is about twice as much hand-loom cloth made in India as there is power-loom made cloth. Hand-loom weaving is the most important indigenous industry in India to-day. According to the census of 1901 there were 2,700,000 hand-loom weavers, and something more than that number of dependents, or somewhere like 6,000,000 of people are dependent upon the hand-loom industry for their livelihood.

This ancient industry has suffered greatly from the introduction of machine-made goods, and yet it is still possessed of considerable vitality, as the above figures show, and does not remain as but "a shadow of its former self," as seems to be the fashion to talk of this industry. It is very doubtful indeed if at any former time a much larger number of people were engaged in it. The population of India has more than doubled during the past century. The general increase in wealth and improvement in the standard of living will probably account for the enormous importation of cotton goods rather than to credit it to a corresponding lessening in the products of the Indian looms.

This village industry of the hand loom gives means of livelihood not only to an immense number of the weaving class, but affords means of supplementing the incomes of agriculturists, the backbone of India, who usually employ themselves on hand looms when field work is unnecessary, and also when, owing to famine, drought, or excessive rains, agricultural operations are not possible.

The hand weavers of India have already greatly suffered by the competition with the power looms and by the change in the taste of the people; and doubtless the present is only a mild forecast of what is yet to come. To meet the ever-increasing stress of competition they can only offer to work at lesser wages and for longer hours. By enlisting the services of their wives and children and by leading lives of monotonous, arduous toil, they have managed to survive. It has only been in late years that any effort has been attempted to better their surroundings, and, as far as I am able to inform myself, the efforts made on behalf of the weaver to improve his condition or the hand loom have, as yet, resulted in nothing material.

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The native hand loom is of an archaic pattern, the apparatus and methods used by the hand weavers are centuries old. It is claimed that in preparing the warp the hand-loom weavers are incapable of winding more than two threads at a time, though the simplest improved mechanical devices would enable them to increase their abilities by fiftyfold.

SLOW PROGRESS WITH HAND LOOMS.

The native hand loom is a most primitive affair. The Indian hand loom, as it now is, is the same as it was some thirty centuries ago. The old English fly-shuttle hand loom of a century ago is ages in advance of the hand loom now in general use by the native weavers throughout India. Of course there are a number of fly-shuttle looms in successful use in certain localities—for instance, those now in the Mission schools, first introduced by the Danish or German Lutheran missionaries in Madras. The School of Arts of Bengal and of Madras, and Mr. Churchill of the American Marathi Industrial Mission School at Ahmednagar have taken a deep interest in the problem of native weaving and have attempted to adapt the fly-shuttle loom to meet native requirements. But these are all exceptional cases, and though in some instances they have met with a certain degree of success, yet they have not succeeded in inducing the native weaver to take to the "fly shuttle" in the same businesslike way as was done in Europe and in America in the days of our grandparents.

The power loom can make cloth, if not possibly better, certainly cheaper than the hand loom, but on account of the disability under which manufacture labors in India the power loom is not worked to its full productive capacity. This is, therefore, the reason why the production of the hand loom in India is twice that of the power loom; and it is also in fact the reason why the hand loom continues to exist at all.

Outside competition and advancement in the art of weaving will eventually force the improvement of the Indian power-loom weaver, and with the coming of that condition will witness the beginning of the end of the hand-loom industry. It is claimed by the more conservative that it is perhaps well that India should keep to the hand loom, but this is the same economic question that has so often arisen in other and more advanced nations. America and European countries have had to face it before now, and as they have solved it so may India.

If a man by reason of superior training and with the aid of improved machinery can do five or six times as much work as the man without such aids, can there be any doubt as to the results? The latter may cheapen its wage and lengthen its day of labor, and even impress child labor in its struggle for existence, but only to the purpose of again proving that it is the quality of labor, and not quantity that wins.

If the power-loom weaver would improve himself and become able to work the power loom with as great efficiency in India as is done in America or England, then the hand-loom industry would become rapidly extinct.

QUESTION OF COMPETITION AND LABOR.

If the power-loom weaver would improve himself and increase his capacity to attend more looms than one, he would soon outdistance the

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output of the hand loom. It is because he confines himself to only one loom that he brings down the power loom to the producing capacity of the hand loom. In competition, other conditions being equal, it is the skillful and intelligent labor that wins out. The Lancaster weaver attends four and six looms, while the Indian works only one and tries to make good by long hours and less wages. It is not a question of machinery, because the mill machinery at Bombay is as good as at Lancaster, both being substantially all English make.

It is a common saying that labor in India is plentiful and cheap. There can be no doubt but that it is plentiful and patient, too, as the day is long, but my observation teaches me that it is not cheap. The daily wage of an individual is very small, it is true, but the daily work done is small in proportion. The system, methods, and number required to perform a given work are such that it is fully as expensive in result as in most any other country.

It was stated by Mr. Johnson, president of the upper Indian Chamber of Commerce, in a paper prepared for the industrial conference of the Indian National Congress held at the city of Benares in December last, that under the present conditions an Indian weaver working 72 hours a week turns out at the very best only 70 pounds of cloth, while the European, working 54 hours, can turn out 468 pounds.

COST OF MANUFACTURE.

It costs in Lancashire the equivalent of 2⅛ cents to make a pound of coarse cloth such as is worn by the lower classes in India. This figure does not include the cost of the cotton or the yarn, but simply the cost of making the cloth and all processes previous thereto, including such items as wages, stores, and coal. In India a similar cloth would cost at least 2⅝ cents, but the cotton or yarn in these cloths is so much cheaper in India than in England that the higher cost of production in India is more than made up in the price of the raw material. That is one of the reasons why England can not compete with India in coarse goods; but if this difference were to disappear, which it does on the finer counts, then India could not compete at all.

All the superior grades and finer fabrics of cotton-made goods are imported into India. Few, if any, are made here; hence along this line of goods there is little, if any, competition. In the coarser qualities of cotton cloth and cotton yarn up to 30s counts, and to the making of which the short staple cotton of India is especially adapted, the Bombay mills have an advantage of home-grown cotton at its door. This means the amount of the transportation charges in her favor, were the raw cotton carried to Europe and then manufactured into cloth and again brought back to India.

BRITISH EXPORTS.

DECLINE IN PIECE GOODS—INCREASE IN YARNS.

The British Board of Trade returns show a falling off in exports of cotton piece goods of all kinds of nearly 57,000,000 yards in June of this year, as compared with the corresponding period of 1905. To China, including Hongkong, there was a decrease in June in exports from England of 20,000,000 pieces; but there was a decrease in exports to Bengal in the same time of nearly 25,000,000 pieces. To the United States the shipments aggregated 4,004,100 pieces, as compared with

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3,967,300 pieces in June, 1905. To Cuba the exports in June were 3,571,400 pieces, as compared with 3,733,500 pieces in June of last year. There was an increase in the exports to Canada but a considerable decline in the shipments to the British West Indies.

The London Times says that all the foreign outlets for cotton cloth are fully supplied, which causes the staple trade of Lancashire at this time to be exceedingly quiet. Fresh looms, however, are being erected in various parts of north and northeast Lancashire, which has the effect of discouraging the manufacturers in other parts of Lancashire. There are no new cotton spinning mill projects at the present time, and the reckless extensions, the London Times says, witnessed during the last two years in England appear to have come to an end. According to an estimate recently made by William Tattersall, of Manchester, $50,000,000 have been spent during the past two years in cotton-spinning mills and weaving sheds in the county Palatine.

The total shipments of cotton yarn from Great Britain during the first six months of 1906 were 105,146,400 pounds, as compared with 97,867,100 in 1905. The shipments of yarn from Great Britain show no instance of decreased exports that are worth taking into consideration except as regards China. The shipment of cotton piece goods from Great Britain for the six months ending June 30 were, in yards of cloth, 3,116,703,600, as compared with 3,005,471,300 last year. But the June shipments showed a significant decline. The outlets which received more from the British market this year than last were Turkey, Argentine Republic, India, Japan, America, Colombia, Australia, and Belgium. But China shows a decline both in cotton cloths and in yarn.

GERMAN EXPORTS TO THE EAST.

Germany, anxious to extend her trade with the East, has been giving a good deal of attention to the conditions in China and Japan and to the causes that are keeping her cottons from eastern markets. She finds it hard to get ahead of England, the United States, Japan, and India in supplying the Orient with shirtings, sheetings, and drills. German experts who have been in the East advise their countrymen to give attention to certain classes of piece cotton goods. They point to the remarkable success of two Italian firms which have entered the eastern field with satins and prints. The firms referred to are the "Società Italiana per l' Industria dei Tessuti Stampati" (Italian Print-Goods Company) of Milan and the "Cotenoficia Piemontese, Società Anonima" of Turin, the latter capitalized at $3,000,000, with a working capital of $600,000.

Both companies have traveling agents in all parts of China who, provided with samples, are successfully selling their goods. The English are making extra efforts in the East, particularly in China, urged thereto either by Italy's or Japan's success. The Germans have gathered samples of all textile goods going into the East, and are exhibiting them in the rooms of the Department of the Interior of the German Empire, in Berlin, where for four weeks they are to be on exhibition, after which time they will be loaned to boards of trade for exposition in the great textile centers.

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COTTONS IN CHINA.

MILL BUSINESS—YARNS ARE IN GOOD DEMAND.

Consul-General H. B. Miller reports that the Tokyo Manufacturers' Association published the following statement by Mr. Yamanoto, a Japanese cotton manufacturer, about the cotton mills of Shanghai and condition of trade there:

The cotton mill business in Shanghai is making fair progress. At present the spindles in Shanghai number about 300,000, of which 100,000 are owned by the Chinese, 100,000 by the English, 50,000 by the Japanese, and 40,000 by the Germans.

The sorts of cotton yarns demanded in China are varied. Manchuria demands 10-hand, Shanghai 14-hand, Tientsin and Cheefoo 16-hand, and Szechuan 20-hand, while India supplies 10-hand and 20-hand, and China 14-hand. Cotton yarns made in Japan sold well this year. The sale of cotton yarns varies according to their sorts and to the places where they are sold. Formerly Japanese yarns were quoted below or equal to Indian yarns. At present, however, the Chinese have come to admit the superiority of our yarns in quality. They are therefore quoted 5 or 6 taels above Indian yarns. At Tientsin, Chefoo, and Hankow, our 16-hand yarns, dearer as they are than Indian yarns, can command the market. But Szechuan prefers inferior and cheaper 20-hand sort. It is, however, desirable that our cotton mills should strive to maintain the good quality of their yarns.

The trade in general at Shanghai is most active at present. The large sum of money spent there by the late belligerents has greatly increased the purchasing power of the Chinese. A large amount of cotton yarns and cotton goods was exported from Japan to Shanghai during the war, and it is quite reasonable to expect that the trade will continue to prosper.

WEST INDIES.

PRODUCTION OF SEA-ISLAND COTTON.

What is known as the West India Committee met recently in London and listened to a paper read by Sir D. Morris on "The present position and prospects of the sea-island cotton industry in the West Indies." Mr. Morris said that in 1903, while on a visit to the United States, he obtained $2,500 worth of cotton seeds from one of the best estates in the sea islands, and thus was laid the foundation of an important new industry in the West Indies. The total value of the industry to date might be placed at about $800,000. There was room for further improvement. Excellent prices had been obtained for this cotton, reaching 40 cents per pound at St. Vincent. Excellent qualities of cotton had also been produced in Barbados, Antigua, St. Kitts, Nevis, and Montserrat.

A fair amount of land was reported to be available still in some of the islands at prices from $10 to $35 an acre, and in a few instances it might be rented at about $2 to $3 an acre. It was the opinion of experienced persons, he said, that the West Indies might produce all of the best qualities of sea-island cotton required outside the United States and thus add nearly $5,000,000 to the value of their present exports.

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SILK.

ITS PRODUCTION.

MILAN'S INTERESTING EXHIBITION.

ITALY'S STRONG SUPREMACY IN THE INDUSTRY ILLUSTRATED.

The report of Consul J. E. Dunning on the silk display at the Milan Exposition is of particular interest because of the heavy purchases by the United States of raw silk in the Milan district. These amounted for the year ending June 30, 1905, to $13,000,000 out of a total of $18,000,000 for all classes of goods. This heavy increase over the records of previous years was fairly well sustained for the fiscal year 1906, recently ended, though the total imports were not so large as in 1905. Mr. Dunning writes:

The preeminence of Lombardy in the silk industry is expressed at the Milan Exposition of 1906 by the large and handsome building devoted to the cultivation of silkworms and the manufacture of silk goods. There are showrooms for cocoons, silkworm and cocoon development, reeling of silk, winding of the thread on bobbins, and a model weaving and dyeing mill. In other exhibition rooms every variety of silk goods is set out in glass wardrobes. The walls are hung in specially made silk and the furniture is upholstered in Italy's best fabrics.

In the silkworm hall are worms from the tiniest to the mature, feeding on mulberry leaves and spinning cocoons. Here are refrigerators, incubators, hatching machines, feeding frames for handling large numbers of small worms without loss, spinning frames for bunching the mature worms during the process of making the cocoons, ovens for the evaporation system of disinfection in the silkworm nursery, cases of varied form and substance for the transportation of baby worms, etc. The incubators show both the hot-water and hot-air systems. Systems of leaf cutters for harvesting the mulberry crop, willow reed cylindrical cases for shipping worms and threading cocoons, and bags for isolating seasoned cocoons are also exhibited.

DEVICES TO PROMOTE GROWTH.

For the care and cultivation of the silkworm are shown isolators; "harps" for the spinning of the cocoons made of metal and hemp thread; sacks and paper cases for holding and preserving butterflies, with variations to meet the needs of males, females, and couples; apparatus for the care of the coupled butterflies; silkworm cells with mother butterflies; microscopes, special marble tables, and other

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apparatus for the study and cultivation of the worms, and refrigerators and ventilators of sundry kinds for the regulation of temperature in the storage of worms and cocoons. Marked attention is paid to devices intended to assist in crossing the breeds of worms, consanguinity being one of the fixed "don'ts" of the Italian market. Emphasis is laid on the importance of securing and maintaining thoroughbred worm stock, so that in the cross-breeding process no taint of degeneracy (expressed by flabby physique) may enter into the constitution of the progeny. Outside is a model mulberry orchard, from which are fed the young worms in the trays within.

CHEAP LABOR SUPPORTS THE INDUSTRY.

In one hall 50 women, dressed in the gaudy costume of the northern provinces and wearing the dazzling silver fan-shaped headdresses, are engaged in the washing of the cocoons and the winding of the silk therefrom. One double row of tables runs down either side of the hall, containing the hot-water basins, the leaders for the thread, and the slender steel frames by which it is led above the heads of the operators and carried to the lines of reels placed in a long row behind them. Dense crowds of visitors since the first day of the exhibition have not tired of watching these women deftly knotting the broken threads and keeping accurate watch on the bobbing cocoons in the steaming basins. It is these women, earning from 20 to 30 cents a day and able to endure a degree of heated water very much above the ordinary, who have contributed largely to Italy's reputation as a raw-silk producer, and have made it impossible for Americans to compete on their own soil. A dozen young girls, who earn 50 per cent less, are employed in the preliminary soaking of the cocoons and the straining process which immediately precedes the winding and is done at smaller basins set in the inner side of the tables at which the principal operators sit.

In the weaving department, in which a number of processes are exhibited in full operation, nearly all the machinery is of Milan manufacture. One corner is occupied by a model mill in which the power driving the looms is electrically transmitted, individual motors being attached to each machine. These motors are of one-third horsepower and are wound for 160 volts. They are Milan made.

PRODUCT AND ITS DISPOSAL.

In Italy there are cultivated every year 1,250,000 ounces of silkworm eggs, and there are produced 110,000,000 pounds of cocoons, having a total value, at to-day's prices, of $30,000,000. Lombardy produces a full half of this total. The Venetian provinces produce about one-fifth, and Piedmont about one-seventh. In the past ten years there has been an increase in Lombardy's annual cocoon production of 2,640,000 pounds more than the statistics registered in 1897. As one goes south the production diminishes rapidly in volume.

Using now the figures for 1904, the latest complete tables, the whole of Italy produces about 18,000,000 pounds of pure yellow cocoons (pure bloods, not crossed), of which 1,250,000 pounds are withheld from the market for breeding purposes, while the balance goes into the manufacture of silk, of which, at the established proportion of

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25 3/10 pounds of cocoons to each 2¼ pounds of silk, about 1,474,000 pounds of silk thread is produced. Of the crossbred white-yellow cocoons Italy produces 74,674,000 pounds annually, of which 50,000 pounds only are retained for breeding purposes, while the balance goes into the manufacture of thread. Of Japanese green and white cocoons 1,350,000 pounds are used annually and 350,000 pounds are deducted for reproductive purposes. The average total production of Italian raw silk, reckoned on the period from 1893 to 1902, was 8,153,000 pounds per year.

In the year 1904 silkworm eggs to the total weight of 25,000 pounds were imported into Italy to lend tone to the breeding stock, and 3,300 pounds of eggs were exported to meet the similar demand of other markets. In the same year "live" cocoons to the amount of 607,000 pounds were imported (nearly double the amount shipped during the preceding year), while 285,000 pounds were exported; again a heavy increase over 1903. Of dry or dead cocoons there were imported in 1904 6,875,440 pounds, and exportations amounted to 265,000 pounds. The imports showed a decrease of 2,986,720 pounds.

ARTIFICIAL SILK.

SEVERAL VARIETIES SUCCESSFULLY PRODUCED.

Consul Covert, of Lyon, furnishes a report on the manufacture of artificial silk, intended to supplement that on the use of alcohol by the Chardonnet Company, printed in this number on page 130. Mr. Covert writes:

Several varieties of artificial silk are in the market in France, displayed in some of the stores and offered for sale at figures much below the genuine article. Next to Chardonnet the viscose is the most common. It is one of the valuable forms of dissolved cellulose, which may be precipitated and made to assume almost any form desired; that is to say, it may be precipitated into filaments of thread as fine as a spider's web or in masses that can be made as hard as rubber. It may also be precipitated into skeels or molded into a variety of forms. Viscose was discovered and named by Messrs. Cross and Bovi, of London, and it was they who first demonstrated its use. These gentlemen found that when cotton, wood pulp, or any other form of cellulose was treated with a solution of caustic soda, and the solid residue thus obtained was in turn treated with a bisulphide of carbon and this mass was again treated with water the whole would pass into solution, and from this solution the cellulose was reprecipitated at will.

EVOLUTION OF VISCOSE SILK.

To Mr. C. H. Steam, of Kew Gardens, London, is due the credit of evolving artificial silk from this solution. He accomplished this by forcing the viscose solution through a tube which terminated in a multitude of infinitesimal holes, the end of the tube being at the same time immersed in a trough containing a solution capable of precipitating the cellulose. As the precipitation begins immediately on coming in contact with the precipitatory liquid each film maintains its own integrity, and by the first operation quite a number of minute fila-

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ments are twisted into a larger but still very small filament, adapted to weaving into a fabric. Mr. Steam first applied it to the manufacture of carbon filaments for electric-lamp bulbs, in the manufacture of which he was then and still is engaged. He soon found that he could make filaments as large as a lead pencil and as fine as a spider's web. This last discovery was found by him to be especially interesting, and he soon applied it to the manufacture of artificial silk. This viscose silk is now produced in France at Arque la Bataille, near Dieppe, at Taulignan, in the department of the Drome, in Stettin, Germany, and in other places in Italy and Switzerland. Merchants inform me that it responds readily to hues, while it is sold for about two-thirds the price of the genuine silk, which it closely resembles. An allied industry to which viscose is applied is the manufacture of artificial horsehair. The article is now manufactured in England and the industry is said to be very prosperous.

I am told that viscose and its products contain nothing that is in any way allied to gun cotton, and is no more inflammable than ordinary silk. Another difference between viscose and the Chardonnet silk is that the former requires no alcohol in its manufacture. The viscose silk thus far manufactured in France has found purchasers in this country, and but little of it has been exported to other countries.

ANOTHER PROCESS DESCRIBED.

Another variety of artificial silk manufactured from a base of hydrate of copper was patented in 1890 by M. Despeissis. A description of this process, which I find in a small volume written by M. P. Willems and published in 1904 by the Central School of Arts and Manufactures in Paris, states that this product differs from all others in the nature of the corps employed, in the chemical reactions upon which it is based, and in the results obtained. I translate and condense a few lines from the description made by the inventor:

I employ, in the first place, not pyroxile but pure cellulose, which I dissolve in a cupro-ammoniacal liquid (Schweitzer reactive), cuprate of ammoniac, and the solution obtained is stored in a reservoir, from which it is made to emerge through capillary orifices under a pressure.

In emerging from these orifices the viscose spray of cellulose is dissolved in Schweitzer liquid and passes through a special chemical bath, such as chlorydrique acid, ascetic, oxalic, tartric, or citric acid, which coagulates the cellulose and converts it into a solid fiber while taking from it a part of the copper and the ammoniac which has been drawn into it. Then the fiber is treated with a diluted chloridric acid bath to take from it all the copper and ammoniac by chemical action and by osmose. The chloridric acid converts the Schweitzer liquid into chloride of copper and chlorate of ammoniac, corps which are soluble and which separate from the filament where the pure cellulose remains. * * *

To impart to this artificial silk a closer resemblance to real silk, which contains azotic products, the cellulose solution may be treated in a bath of Schweitzer liquid with a certain quantity of animal substance, such as albumen or silk wastes or bourre de soie. The filament may be treated also in a solution of albumen copiously diluted with water.

NUMEROUS PROCESSES.

A process of making artificial silk somewhat similar to that of Despeissis is called the "Pauly process," and was patented in 1897. Other processes are that of Fremery and Urban, patented in 1899; the Consortium Mulhousien, also patented in 1899; a process patented by the Parisian Artificial Silk Company in 1900; the Thiele process, patented

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in 1892; another also by M. Thiele, patented in 1903; the process of Wynne & Dowell, patented in 1885; this patent was for making silk on a base of chlorure of zinc. In 1883 a M. Daddi was granted a patent for manufacturing artificial silk from vegetable substances.

The manufacturers of and dealers in silk in Lyon watch the progress of all these inventions with great interest, and many of them believe that a method will yet be found to produce an artificial article that will rival natural silk in beauty and durability. It is an entirely new industry, believed to be susceptible of filling an important place in the field of modern industry. Thus learned chemists are devoting their time to the study of a means of finding new methods or of perfecting those now employed, and it is believed that the efforts now making will result in discovering a means to produce a texture which will nearly, if not entirely, serve all the purposes of the beautiful silks spun from the cocoon.

DYER'S TRUST.

INTERNATIONAL ASSOCIATION ORGANIZED.

Consul John C. Covert quotes from a French newspaper concerning the organization of the silk dyers, as follows:

The Monituer des Soies, the organ of the silk dealers in Lyons, in its issue of July 14, 1906, reports the organization of an international association of silk dyers, consisting of nearly all the great silk dyers of Europe. It quotes as follows from the Nouvelle Gazette de Zurich:

> From all that we can learn a general union of silk dyers does not yet exist; there are only some isolated houses, without doubt the most important, in Germany, France, and Switzerland which have entered into an agreement. Steps for the extension of this consolidation are still in progress.
>
> The majority of the dyers composing the union belong to the Crefeld houses. The great houses of Zurich, Basle, and Gillet & Sons, of Lyons, France, are among those in the union. It is stated that the object of the union is to prevent unfair competition. It will affect in its business only silk dyed in black. A rebate on ordinary prices will be granted to manufacturers who give all their work to members of this union.

The Lyons paper from which I have translated this report quotes the Crefeld Gazette as saying that negotiations are on foot with the Silk Manufacturers' Association on the subject of certain guaranties asked by the latter. It is quite probable that the formation of this dyers union will lead to the organization of a trust involving the great silk interests of Europe. The silk manufacturers of Lyons have discussed the question of such an organization, and generally concluded that the business was so divided up into small interests, such as the raising of the cocoons, the reeling, dividing, throwing, weaving, dyeing, etc., that their combination all under one management would be impracticable. It is quite probable that the formation of the dyers' union may point the way to a formation of a general trust.

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CACAO AND RUBBER.

INFORMATION ABOUT TROPICAL PRODUCTS.

COSTA RICA.

PROSPECTIVE PRODUCTION AND PROFITS—COST OF LAND AND LABOR.

Consul John C. Caldwell writes that cacao and rubber are grown in Costa Rica on the coast and on the frontiers some distance from San José, and he is indebted for the following information in regard to cacao to Mr. Leon Laprades, who is the largest individual exporter in Costa Rica:

Two varieties of cacao are cultivated, the "criollo" and the "calabasillo." The latter gives the best results. There are under cultivation some 2,000 or more acres. It is estimated that 1,100 pods yield 100 kilos (220 pounds) of fresh, or about 100 pounds of dried, cacao. Cacao for export costs at the Atlantic port of Limon about 7 cents United States gold per pound. In the local market of San José it sells, if sun dried, at 8 or 8½ cents per pound; if cured by machinery, at 10 or 10½ cents per pound. The production is increasing; exportations was in 1904, in round numbers, 260,000 pounds; in 1905, 325,000 pounds. There were also sold in the country last year from 175,000 to 190,000 pounds. Rubber trees as shade for cacao have not proved a success. Insects do no great damage, but the pods are sometimes injured by a fungus growth.

The plantations are mostly owned by foreigners, and I do not know of any American who devotes his time solely to cacao. A few may raise a little in connection with bananas. There is land available for cacao growing on both coasts. Wild land on the Atlantic side could be bought at $5 to $7 per acre. If the land were also suitable for bananas it would be held at a much higher price, perhaps $25 an acre. On the Pacific side land is cheaper. Labor on the Atlantic is mostly performed by Jamaican negroes, who receive on the average 70 cents gold per day. On the Pacific native peons receive 1 colon (46½ cents), and in some localities even less. There are no export or other taxes. All goods exported pay a wharfage equivalent to about one-fifth of a cent gold per kilo (2¼ pounds).

Some three years ago Professor Cook, of the United States Department of Agriculture, visited Costa Rica, and among other industries made a study of rubber. The results of his investigations have been published, and a copy can be obtained by applying to the Agricultural Department at Washington. Rubber is being cultivated on the coasts and the Nicaraguan frontier, but none of the trees are in full production. Most of the rubber exported is grown wild and is purchased from peons and negroes, who bring it in from the forests. There are

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several varieties of the "castilloa elastica" grown in the country. In 1905 about 160,000 pounds were exported. Price at Limon is about 55 or 56 cents per pound. At Punta Arenas, on the Pacific, it sometimes brings more. Wild lands for rubber growing could be purchased on the frontiers at a price less than those mentioned above.

BRITISH GUIANA.

EXPENSE AND METHODS OF ESTABLISHING PLANTATIONS.

Consul John McMackin, in a report from Georgetown, states that the area under cacao cultivation in British Guiana is estimated to be 1,500 acres, and the quantity exported annually varies between 50,000 and 125,000 pounds. He continues:

The difference between the production and the export is consumed locally. There are two factories manufacturing chocolate for local consumption. The criollo, forastero, and calabacillo are cultivated. The criollo is the best, but is not as hardy as the forastero, which is the one usually grown here. The calabacillo is inferior, the beans being flat and of a bitter taste. With favorable weather the average yearly production may be taken at 25,000 pounds per 100 acres, or, say, 1 pound per tree, but this is exceeded by a few properties which have been intelligently planted and shaded and have been carefully looked after, and the production of such does not fall far short of 35,000 pounds per 100 acres. Only one small property of 120 acres is owned by parties residing in the United States. The price realized for home consumption is from $11 to $12 per 100 pounds, but increased production would soon cause a drop and the foreign market rates counted on. There is no noticeable increase in the production, and the area under cultivation is not much greater than it was four or five years ago. Local men of means are not inclined to embark in cultivating a product that takes at least eight years for returns. The trees are not much injured by insects. There are, however, the cacao pod disease (phytopthora omnivora) and brown rot (diplodia cacaoicola) to be found on some of the estates which are not so well drained and looked after. The lands along rivers and coast most suitable for cacao have no natural drainage. They are below sea level, and consequently "kokers" have to be used to shut out the high tides, and in heavy weather they are opened twice during twenty-four hours to drain off the surplus water.

COST OF LAND AND DEVELOPMENT.

Crown land can be bought at less than 50 cents an acre. It is usually heavily wooded, and the cost of bringing an acre of such land into cultivation with the necessary draining trenches is somewhat heavy. Forty dollars would cover the first twelve months' expenses, which would also include the cost of young cacao plants easily purchased from the Government Botanic Station at $1.50 per 100 plants 6 to 9 months old. The cost of keeping an acre in proper cultivation for the second and up to the eighth year would not exceed $18 per annum. Some returns might be secured from growing catch crops, but this is an uncertain calculation. Buildings, curing house, and laborers' houses are additional costs. East Indian coolies and black laborers

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are employed. The wage is 32 cents gold per day, but they earn 25 per cent more by job work, which is satisfactory to both parties. There is a tendency to treat Mondays as holidays and work only one-half day on Saturdays. No doubt the enervating climate accounts for the disinclination to work more than four days a week.

There is no export or other tax on cacao, but on rubber which is collected in the interior from Crown lands a royalty of 2 cents per pound is collected on export. The planting of rubber as shade for cacao has not yet been much tried, as no new properties are being established. The local department of agriculture has advised the planting of rubber as shade, and no doubt a few plantation owners will try the experiment. Two or three parties have obtained Crown lands, of which there is considerable suitable area for rubber growing. Probably the idea is to interest foreign capital. The colony is free from hurricanes, and the occasional abandonment of a sugar estate would appear to give a surplus of labor. The land of an abandoned plantation, after the buildings and machinery have been disposed of, can usually be bought for about $5 per acre. It is usually well drained and possibly suitable for cacao. It suggests itself as a cheaper method of establishing a cacao plantation, and has the advantages of a labor supply on the spot. Transportation to the shipping port Georgetown is all by water. Freight by sailing craft or river steamer does not exceed 15 cents per bag for distances of 30, 40, or 50 miles.

MEXICO.

CHONTAL TREES USED FOR NECESSARY SHADE.

Consul William W. Canada reports from Veracruz that the entire State of Tabasco, northern part of Chiapas, and southern part of Veracruz undoubtedly offer the best soil in Mexico for the cultivation of cacao.

The best results have been obtained on the level lands of the vicinity of Tlacotalpa, Teapa, Mescala, and Rio Seco, in rather sandy but rich soil. The cacao produced is of good quality. Cacao is usually transplanted. Fresh and carefully selected seed should be used, which is planted in long, narrow boxes some 8 inches apart and about 1½ inches deep. The seed boxes are then covered with loose leaves, which are removed after two weeks, and a shelter about 3 feet in height substituted to protect the young plants from the sun. January and February are considered most favorable, but planting is also done during June and July. While the seed is developing in the beds, and after the land has been carefully cleared and prepared to receive the young plants, sprouts of the chontal tree are set out in regular lines and at a distance of about 16 feet, or at whatever distance it is intended to preserve between the cacao plants, alternating the chontal with sprouts of the cocoite trees. In about a year's time, or perhaps less, these young trees will afford the shade required for the cacao, and the young plants may now be set out. The greatest care should be exercised not to disturb the soil that clings to the roots of the young plant. It is well to take up a little of the soil with it. Cacao plants are sometimes set out when only six months old, if sufficiently developed, but in all cases the soil must have been well prepared to receive them, and above all kept clear of weeds.

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As many as 400 trees are usually set out to the acre; but some planters claim to have obtained better results with 320 or 280. The plants will begin to bear in about four years, and will then produce about 200 pods yearly, which may be gathered at odd times or at regular intervals, say, four times per year. The beans are removed from the pods, washed, and dried in the sun for three days. They are then ready for the market. No machinery is employed in this operation, at least not in Tabasco; but doubtless some machinery could be utilized to advantage. The cacao tree will thrive at an elevation of from 50 feet to a moderate altitude, but always requires a sheltered location. In the State of Tabasco and at this high level trees have attained the age of 40 years, and have been good producers from the age of 5 to 30 years. In other parts of this State 30 years is about the limit. The value of the product is determined by the color and the size of the bean. Imperfect grains are sold at lower prices. The present market value of a fair grade, as quoted at Veracruz, is 23 cents United States currency per pound. No cacao was shipped to the United States from this consular jurisdiction during the past year.

WEST INDIES.

INFORMATION CONCERNING CULTIVATION.

A report from Consular Agent George Davidson, at St. Lucia, on cocoa and rubber is as follows:

Cocoa is the next important product of St. Lucia Island after sugar. The output is steadily increasing and will soon surpass the latter. The quantity exported for the last twelve months was close on 800 tons, the largest cultivated variety being the "foresteiro" and the average local price is $8 per 100 pounds. Rubber is now being used as a shade for cocoa, and it is generally believed to be beneficial in situations where there is much moisture. The Central American variety is that grown most largely. No exports of rubber have as yet been made, as the industry is in its infancy, but at the experimental station of the imperial department of agriculture trees have already reached maturity, have been tapped, and the product favorably reported upon by experts in England. The rubber tree has not in this island been subject to attacks by insects, but in isolated instances, where the soil or position is not favorable, scale has appeared in the dry season, but this is easily eradicated; in fact, it rights itself again when the rain comes on.

There are no Americans carrying on agricultural pursuits in this district. Several thousands of acres of Crown lands are available for, and the greater part is suitable to, cocoa and rubber cultivation, and can be had at from £1 to £2 ($4.80 to $9.60) plus survey fees per acre. To assist purchasers of these lands the Government supplies to a limited extent plants and seeds of economics free. Formerly the obstacle to the taking up of Crown lands was the want of roads to the interior, but the matter of opening up by a system of roads the principal tracts of Crown lands is engaging the attention of the Government at the present moment. Labor is not as plentiful as it was, say, two years ago, as the works at the Isthmus of Panama have attracted a large number of the laborers from this island, who still continue to go there, but the labor question is not serious, and a man

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can be had for 36 cents per day of eight hours. There are no taxes of any kind on agriculture, but the question of imposing a small land tax has been mooted by the Government, and it is just possible that it may eventually be carried out. Machinery for agricultural purposes is admitted free of duty.

GUAYULE DEVELOPMENT.

SUCCESSFUL USE OF HITHERTO WORTHLESS MEXICAN BUSH.

Consul V. L. Duhaime, of Saltillo, writes that the guayule shrub two years ago was not only regarded as worthless, but was considered as a nuisance by the Mexican landowners. In fact, lands thick with this brush, which could have then been bought for a nominal sum, are now difficult to secure, the price being from five to ten times higher.

Many sales of guayule on the ground have been reported at over five times the price at which the land itself was held at previous to this boom. The buying up of this shrub began about the latter part of the year 1904, at $15 Mexican currency per ton. But, owing to the numerous parties anxious to secure quantities large enough to justify them in erecting factories for the extraction of the gum, buyers now find it very difficult to arrange deals. Recently, contracts for large lots have been reported at as high as $100 Mexican currency per ton. For many years guayule was known to contain rubber, but it is only within a short time since that a process has been invented for the extraction of the gum for commercial use. Although the product was of an inferior quality and of little value, it was enough to set chemists and inventors to work on the problem; so much so that many extraction processes are being registered at the Mexican patent office. However, none of the methods have yet attained a degree of perfection, as the known results vary from 10 to 12 per cent, whereas the quantity of gum contained in the shrub is known to be approximately 18 per cent. The quality attained can better be judged by the price realized for the product of the different processes, which varies from 28 to 50 cents, gold, per pound on the New York market. However, men engaged in the new industry are learning to produce a better finished product. A sample lot of such excellent quality, extracted with a process in the experimental stage and not yet patented, brought $1, gold, per pound.

No claim is made that the gum extracted from the guayule will ever take the place of rubber, but it can be made a substitute in many forms of manufacture. This industry has now passed from the experimental to the practical stage, and is destined to become a very important one in northern Mexico, especially in the State of Coahuila. Factories which are already working and those now under construction within a small radius of Saltillo will represent an outlay in buildings and machinery alone of several millions of dollars. Large quantities of the gum extracted are now being exported from this district.

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ALCOHOL.

DENATURED PRODUCT.

FOREIGN PREPARATION AND USE.

WHAT AMERICA CAN LEARN ABROAD FOR HOME ADAPTATION.

The act passed at the recent session of Congress permitting the use of alcohol in the arts and industries free of tax will go into effect January 1, 1907. The passage of the act, naturally, has created much interest in industrial circles, and numerous inquiries have been received by the several Executive Departments of the Government in regard to it. Regulations for denaturing are in course of preparation by the Treasury Department, and officers of that Department are investigating conditions under which the work is carried on in foreign countries. Prof. Charles E. Lucke, of the Columbia University, New York, is to make an investigation for the Department of Agriculture of the possibilities of alcohol as fuel. It is expected that large quantities of denatured alcohol will be used for that purpose in small engines, automobiles, and motor boats. The result of Professor Lucke's experiments, as well as those that have been carried on in foreign countries, will be collected and published. Persons who have patented vaporizers, carburettors, or complete engines, which it is desired to test, may send the apparatus to Professor Lucke at New York. The tests will be conducted without expense to the owners of machines, except that for transportation.

The reports that follow from our consular officers in connection with denatured alcohol will be found interesting:

ITALY.

METHODS AND PROCESSES—GOVERNMENTAL SUPERVISION.

Consul James E. Dunning, of Milan, writing in response to an American inquiry for information pertaining to the alcohol trade in Italy, gives in detail the denaturing processes in vogue there, and comparisons with the French system. The consul's letter reads:

Methyl (wood) alcohol has no market in Italy, and it is impossible to quote prices from manufacturers to first hands. The entire manufacture of alcohol is in the way of becoming a Government monopoly, on account of the heavy taxation placed upon it and the impossibility of importing any stock from outside the country under the protective

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tariff which stands against it. The present price of ethyl (grain) alcohol to first hands is 54 cents per quart in large quantities at a 95 per cent proof. The Government fabrication tax is $40 for every 100 quarts of alcohol manufactured in Italy, paid by the producer, and the import duty is the fabrication tax plus $7.20 per 100 quarts. These conditions have been found not only exceedingly difficult by the Italian manufacturers, but quite prohibitive against foreign manufacturers. Indeed, the Government tax was found so burdensome in 1905 that a part of the trade abandoned the effort to keep the field, and in first six months of the fiscal year 1905–6 there was a decrease in the Government revenues from manufacture of alcohol of $125,000. By the closing of one factory in Milan there was lost an annual revenue of more than $750,000, which was paid by the Italian Alcohol Company here in the fiscal year 1904–5.

GOVERNMENT SUPERVISION OF DENATURING.

The total revenues derived from the manufacture of alcohol under Government fabrication tax in the first semester of 1904–5 was a little over $4,100,000. The same period of the following year, just closed, showed the decrease above noted in spite of the general increase in this as in all other lines of Italian trade. In the first semester of the fiscal year 1905–6 1,620,625 quarts of alcohol were adulterated for industrial uses, 307,000 quarts being wine and vinous materials, and the balance nonvinous.

As with the Germans, the Italians use benzol prominently in their process of denaturing alcohol. Mitilene and aniline are also commonly used in this process, as is pyridin, which is obtained from the distillation of coal tar. The details of the process are kept secret by the Laboratory of Denaturants at Milan. For use in the manufacture of artificial silk, alcohol is adulterated with a special denaturant composed of three quarts of acetone, oil of acetone one quart, and sulphuric ether two quarts to every 100 quarts of pure alcohol. This process is directed by a special law, which not only prescribes the terms of the denaturization, but orders that the acetone and oil of acetone shall be furnished in every case by the Laboratory of Denaturants at Milan, at the price of $1.57 per 100 quarts of alcohol to be denaturized. The sulphuric ether used in the process must be supplied by the laboratory and must be approved by a Government test before being mixed. The law further fixes the proof of denatured alcohol at 99 degrees, and allows that the denaturization may be accomplished by the use of sulphuric ether alone, in which case the proportion must be 20 quarts to each 100 quarts of alcohol, and the operation must be, as before, subjected to the supervision of the Government.

HIGH TAX LIMITS THE USE.

The price which I quoted above—$54 per 100 quarts in large quantities—is the average here for the season. I receive from an authoritative source other figures which show that corn alcohol at 96 degrees has sold this month (June, 1906) in the Milan market at wholesale, at $57 to $58 per 100 quarts; 95 proof (known as triple grade while the first goes as quadruple), at $54 to $55; 96 degrees for the alcoholization of wines intended for export, $12 to $13 per 100 quarts; 92 degrees adulterated for industrial purposes, $14.25 to $15; and 90

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degrees for the manufacture of vinegar, $32.50 to $32.75. The marked difference in the price of alcohol to be used in wines destined for export is explained by the special provision of the law which removes the greater part of the tax of fabrication, through a system of reimbursement, on stock sold for that purpose.

There is no demand in Italy, so far as I have been able to discover, for alcohol as fuel for engines, automobiles, etc. Neither is gasoline used for these purposes. Benzine is the principal fuel, and the price in quantities is $16.80 per 100 quarts for German stock, while gasoline is quoted at $23.75 per 100 quarts. I find American benzine quoted among the dealers in fuel for automobiles at about $16.25 per 100 quarts. Milan dealers tell me that American benzine is imported in exceedingly small quantities, through the port of Venice, but that it is not in favor here. There appears to be no better reason than that no heavy effort to introduce it has been made. Most of the benzine used in Italy comes from Germany and Austria, the German stock having a very long lead. The Italian import duty on benzine is $9.50 per 100 kilos, or 220 pounds. Italy has no customs conventions with other countries on oils of this classification excepting that with the United States, which allows turpentine oil free entry.

FRENCH AND ITALIAN SYSTEMS.

Readers specially interested in the details of the subject may like to have some more complete description of the Italian process of denaturization as it is practiced by general chemists. In the manufacture of vinegar denaturization is effected by the addition of 15 per cent of vinegar at 7° and by dilution with water and wine to secure a product containing 14 per cent of alcohol.

Alcohol destined to be used in the manufacture of ether is denaturized by adding 10 per cent of sulphuric acid at a strength of 66° Baumé and with 20 per cent of acid at 54°, and carrying the temperature of the mixture to 80°. When alcohol is used for the preparation of iodoform acetone is added.

The French Government system is much in favor here also among private chemists, that rule indicating as a denaturant for alcohol (methyl) a mixture of 65 per cent of pure methyl alcohol and not less than 35 per cent of foreign substances, among which acetone should figure at from 20 to 25 per cent. Under the French rule of January, 1894, alcohol presented for denaturization in France must contain not more than 1 per cent of essential oils, the usual substances found in a certain proportion in all industrial alcohols. It must have a strength of 90° at a temperature of 15° without corrections; it being understood, however, that alcohols to be used in the manufacture of paints or chemical products be presented for denaturization at a grade superior to 90°. To 100 quarts of alcohol at 90° would be added 15 quarts of methyl of the grade known as "No. 2," adding also 1 pint of unrefined benzine, having the characteristic odor of the gross products of the distillation of coal, and boiling between 150° and 200°. Finally there was formerly added 1 gram of green malachite per 100 quarts.

In alcohol intended for the manufacture of paints, the benzine would have to be replaced with 4⅘ pounds of resin or gum resin, whichever should be chosen by the manufacturer, dissolved in the presence of the revenue agents. The methyl used as standard by the French and accepted equally in Milan, I am informed, corresponds to the formula

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C_2H_4O, has a density of 0.814 at zero, boils at 65.5, and has a power of heat the low degree of which has led to some local discussion as to the method of its application in mixtures intended for use in lamps and heaters. In Italy the addition of 10 per cent of methyl to industrial alcohol augments the price of the finished mixture about $2 per 100 quarts. Its average price in Italy is about $20 per 100 quarts.

USE OF MALACHITE DISCONTINUED.

The high and increasing cost of methyl and the fact that its use as a denaturant is believed to reduce the heating power of the finished mixture to too great a degree, has led the French to submit the whole problem of denaturization to a special commission appointed to study it. This commission fixed the proportion of methyl as 1 to 100 for industrial alcohol, cut out the green malachite on account of the serious inconveniences which it presented, and fixed at 1 to 100 the quantity of gross benzine (distilled at 180°), to be added to complete the denaturization. The commission finally fixed on a mixture of 97 parts of alcohol at 95°, 1 volume of methyl, 1 of animal oil distilled at 100°, and 1 of benzine. It is understood here that the French, in consequence of the report of the commission, have definitely abandoned the use of green malachite. The benzine recommended in this mixture is a special type, derived from coal tar distilled at a temperature of from 150° to 200° and differing essentially from pure benzine, which indicates a density of 0.88 at 15° and boils at 80.4°.

The activity of the French in experimentation along this line to secure a better fluid for both heat and power has given them a dominant position in Europe. For that reason, and the fact that the Italian chemists have found it considerably successful, the French system generally obtains in this country, with some unimportant modifications. The Italians have done next to nothing in such experiments.

FRANCE.

PRIZES OFFERED FOR IMPROVED METHODS.

Consul-General Robert P. Skinner, of Marseille, says in a report that the last word in regard to the industrial uses of alcohol has not yet been said, nor does he anticipate that American expectations in regard to the general practicability of this fuel as a motive force are going to be at once realized. Mr. Skinner continues:

How far from perfect are the methods now in use may be judged from the fact that, although the French Government, by decree dated June 23, 1906, created a commission of analytical methods in regard to alcohol, it is at this time publicly offering prizes for the person who shall discover a more advantageous method of rendering alcohol unfit for consumption than the one now employed, and another prize for the person who shall discover an improved means of utilizing alcohol as an illuminant.

In 1904, on the authority of a manufacturer of a very well known alcohol and gasoline carburetor, I reported that of 60,000 such devices sold by him annually only 500 were intended for the use of alcohol; and elsewhere 100 petroleum or gas motors were being sold for 1 alcohol motor. For this state of facts three reasons were given: The

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high cost of alcohol; excessive consumption; oxidation. There are many alcohol illuminating lamps on the market with which incandescent mantles are used, but they make their way slowly into popular favor. In a word, the whole field of alcohol utilization is one of great fascination to inventors and manufacturers, each of which hopes to be the first in conclusively overcoming the several obstacles to complete commercial success.

There is no important manufacture of industrial alcohol in this region of France, and my opportunities for obtaining information are therefore not of the best. It appears, however, that the manufacturers in this country have combined into a Chambre Syndicale de l'Alcool Dénaturé, of which Ch. Seratzsky, of 64, rue Jean Bart, Lille, is secretary. I am indebted to Messrs. Georges fils, of St. Menet, near Marseille, an important firm in the alcohol business, for the following definite facts on this subject:

PREPARATION AND COST.

Denatured alcohol is composed, according to French law, of one hundred parts of ethylic industrial alcohol grading 90° at a temperature of 15° C., of ten parts of methylic alcohol industrially denominated methylene, and which itself is composed of 75 per cent of methylic alcohol, 25 per cent of acetone, a certain quantity of impurities, and finally a one-half part of heavy benzine.

The price of alcohol at 90°, which serves as a basis, is very variable, and depends upon the demand and supply in the Paris market, which is held daily. This price is actually about 43 francs ($8.30) per hectoliter (26.41 gallons) naked, base 90°, with a premium for quality over 90° and the tax on manufacture, i. e., 1.63 francs (31 cents) per hectoliter (26.41 gallons) of pure alcohol taken at the distillery. The cost of transportation is to be added to this price. For your information let me say that we have seen the market reach 26 francs ($5.01) in 1901 and 57 francs ($11) in 1905. Thus you see how difficult it is to establish an average price for this article, which is so much speculated upon. Methylene responding to the requirements of the law is worth from 80 to 100 francs ($15.44 to $19.30) per hectoliter (26.41 gallons), the benzine from 45 to 65 francs ($8.68 to $12.54).

As to the uses of denatured alcohol, they are multiple—lighting, heating by conversion into gas or by combustion, alimentation of explosive motors, which last utilization tends to assume large proportions, moving on parallel lines with the progress of the automobile and automobile boat.

In a general way the use of denatured alcohol which has been properly treated by means of substances suitable to each special utilization seems likely in the future to compete strongly with the rectified mineral essences. It is necessary simply to bring about this result, to favor its production by the payment of premiums to the producers of the raw material, such as cereals, potatoes, etc., and also to the distillers and those who render it unfit for human consumption, so that this article may be delivered in a permanent way to purchasers at a price of from 25 to 30 centimes (5 to 6 cents) per liter (1.05 quarts), a thing which is now actually impossible. Denatured alcohol can not be sold at this time, retail, at less than 55 centimes (11 cents) per liter.

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PRODUCTION OF ARTIFICIAL SILK PROMOTED.

Pending the consideration of bills at the recent session of Congress relating to free alcohol in the arts and manufactures the Committee on Ways and Means gave hearings, from which much valuable information was derived, and which were helpful to the committee in framing the bill which was enacted. Mr. E. A. Magnin, an American, representing the Chardonnet Artificial Silk Company, of Lyon, France, who appeared before the committee, declared that with free alcohol plants would be established in the United States for the manufacture of artificial silk.

Explaining the extent and output of the Chardonnet Company, Mr. Magnin said 1½ gallons of alcohol were required to a pound of silk, and that the consumption of a mill of the capacity of the Chardonnet would be 6,000 gallons per day. It was further stated that a company had been formed in France with large capital to establish the industry in the United States, provided pure alcohol could be obtained free from tax. Upon the request of the Department of Commerce and Labor, Consul John C. Covert, of Lyon, was instructed by the Department of State to prepare a report on the manufacture of artificial silk, from which the following is taken:

There is no manufactory for the production of Chardonnet silk in Lyon. A factory in Besançon, about 148 miles northeast of Lyon, has been manufacturing Chardonnet silk the last 15 years. The output has been increased from 220 pounds per day to nearly 4,000 pounds per day. Chardonnet finds use more especially in passementerie and corded goods, but is also used for ladies' dresses, and can not be distinguished from real silk except by the closest inspection of a skilled expert. It is but little used in Lyon, but finds ready purchasers in many of the smaller cities of France. Its best market is in the United States. It is manufactured in Germany and Hungary, and a factory is about to be put up for its production in Italy. As alcohol enters very largely into the making of this material, the high internal-revenue tax in the United States has thus far prevented its manufacture there.

METHOD OF MANUFACTURE.

The factory at Besançon employs from 1,500 to 1,800 hands, exclusive of clerks, bookkeepers, traveling men, etc., and has an office in Lyon. I am told by a chemist that the genesis of Chardonnet silk is gun cotton, which is made by treating ordinary cotton with a mixture of nitrate and sulphuric acid. When this gun cotton is dissolved in alcohol it forms collodion, and this makes a solution of cellulose, which is the basis of Chardonnet. A viscous solution of cellulose is injected in infinitesimal jets into the preparation, giving it a brilliancy and tenacity. The alcohol then evaporates from the filaments, and from these filaments the Chardonnet silk is produced. If the article were left in that condition it would still possess all the explosive properties of gun cotton, from which it was made. To remedy this the fiber undergoes a chemical treatment, by which the substitution products above spoken

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of are removed, and the cellulose from which it was originally formed is restored and the fiber loses its explosive properties. It has become normal cellulose.

GERMANY.

MANUFACTURERS AND DEALERS IN APPARATUS.

Consul-General A. M. Thackara, of Berlin, writes that the enactment of the law permitting the use of denatured alcohol for industrial purposes without payment of the internal tax has resulted in so many requests from interested Americans for names of manufacturers of apparatus in Germany for the use of denaturized spirits that he has prepared the following list, which embraces the principal German manufacturers of and dealers in heating apparatus, lamp burners, motors, etc., in which alcohol is used, and apparatus for the distillation of alcohol:

HEATING APPARATUS, LAMPS, BURNERS, ETC.

Agotz, Zehnpfund & Co., 25 Brandenburgerstrasse, Berlin.
Actien-Gesellschaft vorm. E. H. Stobwasser & Co., 156 Reichenbergerstrasse, Berlin.
Fritz Altmann, 154 Reichenbergerstrasse, Berlin.
Arlt & Fricke, 12 Schinkestrasse, Berlin.
Eckel & Glinicke, Berlin.
Ehrich & Grätz, 92 Elsenstrasse, Berlin.
Oscar Helfft, 26 Fischerstrasse, Berlin.
J. Hirschhorn, 149 Köpnickerstrasse, Berlin.
Kemper & Damhorst, 48 Friedenstrasse, Berlin.
A. Meenen, 19 Puttkamerstrasse, Berlin.
Albert Silbermann, 74 Blumenstrasse, Berlin.
Schwintzer & Gräff, No. 18 Sebastianstrasse, Berlin.
Max Schück, 56*d* Grossbeerenstrasse, Berlin.
Moritz Cohn, jr., 52 Ritterstrasse, Berlin.
Rud. Dähne, Frankfurt a. Oder.
Actien-Gesellschaft für Spiritus-Beleuchtung, Leipzig-Stötteritz.
F. C. Fertig, Hamburg.
Karl Kaltschmid, Oberiexingen a. Enz., Württemberg.
W. Reessing & Co., Bremen.
Spiritus-Glühlicht-Compagnie Phöbus, No. A. 18, Dresden.
Schmitt & Zivi, Mannheim (Baden).
Hugo Schneider, Leipzig.
Friedrich Waldbauer, Neuenburg a. Enz.
Hermann Wolff, Unter-Barmen.

DISTILLING APPARATUS.

Aktien-Maschinenbau-Anstalt vorm. Venuleth & Ellenberger, Darmstadt.
Gebrüder Avenarius, Charlottenburg-Berlin.
Aug. Bohstedt & Sohn, Güstrow, Mecklenburg.
Rud. Dähne, Frankfurt a. Oder.

MOTORS AND AUTOMOBILES.

Max Brandenburg, "Kolonial," Berlin.
Daimler Motoren-Gesellschaft, Marienfelde, Berlin.
Motorfabrik Oberursel, Oberursel bei Frankfurt-am-Main.
Ferdinand Kothe, Braunschweig.
Wilhelm Wischelt, Güstrow, Mecklenburg-Schwerin.
Dresdner Gasmotorenfabrik, Dresden.
Otto Richter, Bismarck-Sachsen.
Gasmotorenfabrik Deutz, Köln-Deutz.
Maschinenfabrik J. C. Christoph, Niesky o./L. Schlesien.
Dürr Motoren-Gesellschaft, Eilenberg.
Aktien-Maschinenfabrik, Kyffhäuserhütte, Artern (Prov. Sachsen).
Werner Klohn & Co., Gollnow, Pommern.
G. Schulz, Madgeburg-Neustadt.

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CUBA.

PRODUCTION, USE, AND CONSUMPTION.

Consul-General F. Steinhart, of Habana, in response to inquiries, furnishes the following report on the production of denatured alcohol, the uses to which put, and the approximate consumption in the island:

The principal consumption of denatured alcohol up to the present time in Cuba is in the domestic household. Consumption in motive power is as yet insignificant, as there are but few motors operated by combustion of alcohol. There are no chemical industries, properly so called, in Cuba and the pure alcohol is used in mixture with drugs. For illuminating purposes, denatured alcohol is beginning to be used by students and professional persons who reside in the country.

The increase in consumption of denatured alcohol is incalculable from the day that the Cuban planter is convinced that he is, so to speak, throwing away or making a gift to the export commerce of thousands of tons of saccherose in the form of molasses. It may be asserted that the medium of the molasses sold as exhausted contains more than 50° polarization. Consequently, if this molasses is converted into alcohol, setting up distilleries in connection with sugar factories, it would solve the problem of fuel, the most important in the sugar industry, either by the use of motors with an alcohol basis, or by burning it as a spray over the bagasse, as is done by the planters of Louisiana with petroleum.

QUALITY OF THE NATIVE PRODUCT.

For domestic as well as for industrial purposes, two kinds of alcohol of different density are employed, viz, that called aguardiente, generally 20° to 22° proof, Cartier, or 60 centesimal, and rectified alcohol 42° Cartier proof or 90 to 92 centesimal, and as both kinds have the same origin; the difference consists only that the former contains more water and has in solution slight quantities of oily acids, characteristic of the main liquid, while that of 90° proof may be considered practically pure. For denaturalization, alcohol of 90° to 92° proof is generally used.

As the alcohol produced and used in Cuba proceeds from the fermentation of molasses or of the juices of the sugar cane, it does not contain any fusel oil. This substance has never been considered as a problem in hygiene, nor are there any special regulations in regard to it. Spirits, however, accompanied by the products when first distilled (mauvais gouts de tête, as the French say), contain methylic alcohol, and if accompanied by the products of secondary distillation they contain something of fusel oil. As these products are, however, easily separated by rectification, alcohol in use in Cuba, such as leaves the distilleries, is practically pure.

PRODUCTS OF SUGAR CANE ALONE USED.

No other prime material is used in the manufacture of alcohol than the products of the sugar cane. Up to the present time the substance employed to denaturalize alcohol is camphor at the rate of a gram per

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liter of alcohol, but the treasury department of Cuba has requested the Academy of Science to designate some agent for denaturalization more convenient, and the academy has suggested that a mixture composed of napthaline and (formical) aldehydro be used at the rate of 50 centigrams of each per liter. If the secretary of the treasury accepts the proposal of the Academy of Science, the cost of denaturalization of alcohol will be $0.0047 per American gallon.

The camphor now employed costs about $0.0135 per American gallon, but as there does not exist any practical means to determine quantitatively the amount of camphor dissolved, and as, moreover, the employees of the department do not witness the denaturalization, some suppose that the manufacturers put into the alcohol they make for sale a much less quantity of camphor than is ordered by the authorities. The present cost of camphor is $1.65 per pound; of formel, $0.25, and of naphthaline, $0.90.

Denaturalization is tested by the organileptic characteristics such as smell, taste, etc., but in case of litigation or disagreement between parties a sample is sent to the national laboratory, where the alcohol is examined and analyzed according to the usual chemical process.

The cost of the denaturalized alcohol which is generally sold for public use is from $48 to $50 Spanish gold per large pipe, which contains 173 American gallons. The difference depends upon the graduation, generally 40° to 42° Cartier (90 to 92 centesimal).

It must be taken into consideration that the graduation or proof is taken in commerce at the temperature of the air (atmosphere), and as the apparatus is graduated at from 15° to 17.5° Centigrade, the real strength of the alcohol is about 36° to 40° Cartier.

Retailers sell the "garafon" (demijohn), about 4.55 gallons, at $1.60 to $1.70 Spanish silver, while in bottles of about the fifth of a gallon in capacity at $0.08 Spanish silver.

In regard to the inquiry as to ether, chloroform, smokeless powder and other explosives, they are not Cuban industries, and what is consumed here is generally brought from the United States.

BELGIUM.

NOT PERMITTED FOR FUEL.

Consul-General G. W. Roosevelt, of Brussels, reports that as denaturing alcohol for fuel is not allowed in Belgium there is no demand for alcohol as fuel for engines or automobiles. To denature ethyl alcohol acetonized methylene is specially used, also ethyl methylcebone, but only on a small scale.

Wood (methyl) alcohol, 100°, is quoted at 75 francs ($14.47) per 100 liters (26.417 gallons); grain (ethyl) alcohol, 90°, at 50 francs ($9.65) per 100 liters. Gasoline, for automobiles and motors, sells in iron casks (minimum, 100 liters) for 23 francs ($4.44) per 100 liters.

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MINERALS.

WORLD MOVEMENTS.

THE METAL TRADE IN BRAZIL

SPASMODIC AMERICAN SALES DO NOT INSPIRE CONFIDENCE.

Consul-General George E. Anderson, writing from Rio de Janeiro, states that the number of inquiries as to the trade in metals in Brazil coming from dealers in the United States indicates that interest is now being taken in this business which should have attracted Americans long ago.

At present the United States has less trade in metals in Brazil than any other great nation—in fact the amount of metal from the United States is so small that it does not even appear as a separate entry in the Brazilian customs returns, although the United States produces in great abundance some of the metals now imported. According to dealers in Rio de Janeiro this is almost altogether the fault of the American exporter. Where prices are the same the Brazilian dealer at present buys of Europe exclusively. Some of the Brazilian metal dealers charge bad faith on the part of the American exporting interests, but so far as I can learn the trouble is not of this sort but is merely the old story of American indifference to permanent trade. When the metal business in the United States has been slack orders from Brazilian houses have been sought and filled. When the purchasers sought to secure a second consignment of the same sort of metal at the same prices they were met by actual refusals or general indifference, which probably may be explained by the fact that the trade at home had become more brisk and the American dealers did not value Brazilian orders so long as they could get all the business they could care for from American consumers. The result is a very strongly marked disposition on the part of Brazilian metal dealers not to purchase American goods, and it is improbable that Americans can do any extensive business here unless they seek trade upon a permanent basis and carry such a line of goods that dealers here can establish a stock of a certain grade, preferably with certain trademarks, and maintain that stock without trouble.

IMPORTS OF LEAD, TIN, AND ZINC.

There is quite a large import of lead, both in pig, ingot, and sheets, lead pipe being made in Rio de Janeiro. The imports in 1903 were 2,058 metric tons, in 1904, 2,210 metric tons, and in 1905 about 2,500

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metric tons, the values in 1903 and 1904 being $190,401 and $206,131, respectively. Of this amount imported France furnished about two-thirds. The United States sent practically none, and apparently most of the trouble with American dealers mentioned heretofore has been in the lead trade. The imports of lead during the current year and next year are likely to be very heavy, as compared with previous years, the vast improvements in Rio de Janeiro, both public and private, including a large amount of plumbing and similar work. The reorganization of some of the public utilities by the Rio de Janeiro Light and Power Company will probably lead to a considerable demand.

Tin comes almost exclusively from Great Britain and Germany, and was imported to the amount of 211,501 pounds in 1903 and 1,102,900 pounds in 1904. The "Cornwall" brand seems to be the most popular, Great Britain sending over 80 per cent of the total imports. Most of the zinc imported into Brazil comes from Belgium, that country last year sending over seven-tenths of the total imports, which amounted to about 1,200,000 pounds last year.

COPPER AND IRON.

Even in copper Europe sends about all that is taken, Great Britain sending about 96 per cent of all kinds last year. The imports in all forms (not manufactured) runs about 1,000 metric tons annually. A large amount of that imported goes for copper sheeting for vessels. Of the sheet, rod, and tubes imported there are many sizes, and apparently the trade will have to be investigated before American merchants can do much. There is also considerable business done in copper bottoms for sugar pans in different sizes.

The heaviest imports are of iron. The importations of steel bar and rod in 1903 were 2,206 metric tons and in 1904 2,758 metric tons. Of iron bar, rod, plain, and sheet the importations were 15,643 and 17,496 for the same years, respectively. The importations of pig, cast, puddled, and flings were 3,237 and 4,174 metric tons, respectively. The total importations of iron of these classes which are included in the customs returns as raw materials amount to about 25,000 metric tons, valued at about $1,500,000. These figures include nothing which may come under the head of manufactured goods.

Americans seeking to secure some of this trade should first investigate the situation, and secure a permanent agency in each of the chief cities of Brazil, which work should be done by a direct representative able to speak Spanish and Portuguese, or at least French. The work ought to be done in a single trip, and most of the cities can be reached easily from vessels coming down the coast. This same trip can be extended to South American countries generally with advantage. Its cost is not prohibitive as the beginning of a permanent trade, and it need not be expected that much, if anything, can be done without such a beginning. These observations apply to practically all other lines of trade.

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DIAMOND INDUSTRY.

IMPORTS OF CUT AND UNCUT GEMS—SOURCES OF SUPPLY.

The annexed table shows the value of uncut diamonds, cut diamonds, and other precious stones imported into the United States in each year from 1896 to 1906:

Fiscal year.	Uncut diamonds.	Cut diamonds.	Other precious stones.	Total.
1896	$113,888	.....	$6,598,527	$6,712,415
1897	47,865	$1,937,944	686,789	2,672,598
1898	2,517,759	4,438,030	2,005,258	8,961,047
1899	3,678,266	8,497,284	2,181,034	14,356,584
1900	3,891,226	7,890,945	2,455,015	14,237,186
1901	6,574,630	11,680,823	2,170,283	20,425,736
1902	6,154,853	12,732,670	4,460,702	23,348,225
1903	10,933,188	15,574,598	4,971,437	31,479,223
1904	8,776,418	10,028,452	4,159,249	22,964,119
1905	10,390,917	17,019,530	5,903,484	33,313,931
1906	10,579,654	24,282,897	5,384,459	40,247,010

This importation of uncut diamonds is a development of recent years. Census reports give the number of wage-earners engaged in lapidary work in the United States in 1890 at only 92, and in 1900 at 498, and the value of the products in 1890 at $315,604, and in 1900 at $5,786,281. In 1896 the value of uncut diamonds imported was only $113,880. It has ranged about $10,000,000 a year during the last three or four years.

Practically all the diamonds imported into the United States, while the product of the African mines, come direct from European countries. Of the $24,282,897 in uncut diamonds imported in 1906, $10,192,821 came from the Netherlands, $5,007,792 from France, $4,578,361 from Belgium, and $4,307,811 from the United Kingdom. The cut diamonds came mostly from the United Kingdom and Belgium, the share of the former having been $6,964,543 and of the latter $2,079,136. The Netherlands and France followed with $944,576 and $567,572, respectively.

COKE.

INCREASED AMERICAN PRODUCTION.

The annual report prepared by Mr. E. W. Parker, statistician of the United States Geological Survey, will show that the output of coke for 1905 exceeded that of any other year in the history of the country. Not only was the amount of coke manufactured greater, but the percentage of increase in production was larger. The production in 1905 was 32,231,129 short tons, as compared with 23,661,106 short tons in 1904, indicating an increase of 36 per cent. The increase in value was in still greater ratio—from $46,144,941 in 1904 to $72,476,196 in 1905, a gain of 57 per cent. The increase in price was due to the increased demand caused by the unprecedented production of pig iron. The average price in 1905 was $2.25 per ton, as compared with $1.95 in 1904. There was an increase during the year of 12 coke-making establishments and 3,968 ovens. There were under construction, at the close of 1905, 4,751 ovens. Pennsylvania is credited with producing 64 per cent of the total coke product, and West Virginia 10 per cent, and Alabama follows next with 8 per cent.

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IRON AND STEEL.

HEAVY BRITISH TRADE FOR THIS YEAR.

The imports of iron and steel into Great Britain for the six months ending June 30 were 721,199 tons, as against 632,854 tons in the corresponding period last year. If this rate were continued to the end of the year it would give the largest year's import record ever made. But even a greater increase over the first half of 1905 is shown in the total of iron and steel exports, which was 2,107,435 tons for 1906, against 1,739,166 tons for 1905. The value of exports of iron and steel and allied products, including machinery, was $220,000,000, an increase of about $50,000,000, or 30 per cent over the figures for the first half of 1905. The principal item of increase in exports was in pig iron and puddled iron, from 449,760 tons to 706,867 tons, the principal part of which went to Germany. The decline in rail exports, which has been the occasion of complaint that the international rail agreement has been detrimental to British rail mills, was more than 25 per cent, or from 262,403 tons in the first half of 1905 to 191,909 tons in the first half of 1906. Tin plates fell off in exports from 186,109 tons to 177,288 tons.

SHORTAGE IN GERMANY.

DEMAND FAR IN EXCESS OF SUPPLY.

Consul J. I. Brittain, writing from Kehl, says that in consequence of the scarcity of raw iron the Rhenish-Westphalian Syndicate was recently compelled to place an order for 30,000 tons of smelting iron in England.

It has become almost impossible to purchase German smelting iron for export trade. The Krupp Works have stated to the foundry syndicate that their supply of raw iron will not meet the requirements during the first half of 1907. The iron and steel works in Rhenish Westphalia and Lorraine, Germany, are overloaded with orders, and are obliged to extend the time for future deliveries. These iron and steel works had a larger demand for their products during the month of June, 1906, than during the corresponding month during any previous year. It is claimed that the present demand is based upon actual requirements and has no speculative significance. Similar conditions exist in the coal trade in western Germany, and the coal syndicate has been obliged to place a number of orders in England in order to fill all its contracts. There is considerable apprehension expressed regarding the supply of coke to keep the blast furnaces running during the coming fall and winter.

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LABOR.

MOVEMENTS ABROAD.

FRENCH EMPLOYERS' LIABILITY.

NEW NATIONAL LAW OF REPUBLIC INCLUDES EVERY INDUSTRY.

Vice-Consul-General A. E. Ingram, of Paris, supplies the following summary of the scope and effects of the French employers' liability act of April 12, 1906:

The act of the 12th of April, 1906, is of considerable moment to all those engaged in commerce in France as having a most important bearing upon the relations of employers and employed in the event of accident, for this new law extends to all commercial enterprises without excepting the provisions of the act of the 9th of April, 1898, which hitherto applied only to manufacturers and a limited number of trades. Prior to 1898 negligence or fault on the part of the employer had to be proved to enable a workman or his representatives to obtain compensation in case of accident, and the aim of this act was to substitute for this régime, under which the fullest compensation was awarded in the comparatively rare cases where such proof was possible, a system of more limited compensation applicable in all and every case of accident whether due to negligence or to mere chance. The basis adopted for the assessment of this limited compensation was that of an equal division between employer and employed of the pecuniary consequences of every accident, and the following summary of the provisions of the act of 1898 will illustrate the application of this principle:

ANNUITIES FOR FATAL ACCIDENTS.

The annuity to the widow or widower, to be payable during life and to correspond to 20 per cent of the annual wages of the deceased, and annuities to the children to vary between 15 and 40 per cent of the annual wages, according to the number of children, payable up to the age of 16; the annuities to the children to reach even 60 per cent in the event of their being left orphans. Should a widow or a widower remarry the annuity granted ceases after payment of a lump sum representing three years' annuity; but the children's annuities continue to be paid. In the event of the deceased leaving no widow, widower, or children, an annuity of 10 to 30 per cent is allowed to other relatives.

As an example, a workman earning annually 1,500 francs ($289.50), killed by an accident, leaves a widow aged 35 and three children under 10 years of age. An annuity of 300 francs ($58.50), or 20 per cent, is allowed to the widow and an annuity of 525 francs ($101.32), or 35 per cent, to the children. These annuities, capitalized, represent about 10,500 francs ($2,026.50).

ACCIDENT CAUSING DISABLEMENT.

In case of total disablement from work the victim of an accident receives a life annuity of 66 per cent of his annual wages before the

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accident, and in case of partial disablement only he receives an annuity corresponding to one-half of the "loss of wage-earning power" caused by the accident. For example, the loss of a leg is generally estimated by the courts to be equivalent to 70 per cent "loss of wage-earning power," so that after an accident of this kind a workman earning 1,500 francs ($289.50) annually would receive an annuity of 525 francs ($101.32), or 35 per cent, which, supposing him to be 30 years of age, represents a capital of about 9,500 francs ($1,833.50).

For accidents causing temporary disablement from work the workman receives half the daily wage he was earning at the time of the accident until his complete recovery or until such time as the temporary disablement shall have become a permanent disablement, when the half wages are replaced by the compensation provided for total disablement. All medical and pharmaceutical expenses, as well as hospital and funeral expenses, to be borne by the employer.

LIBERAL COURT INTERPRETATIONS.

In spite of the completeness and precision of the text of this act, a great deal must necessarily depend upon the views of the courts called upon to administer its clauses, and it is only natural, in view of the relations between employers and workmen in France at the present time, that they should incline toward a liberal interpretation. Especially is this the case in the assessment for the total "loss of wage-earning power." Evidence of a tendency to increase the liability of employers is afforded by the act of March 31, 1905, which is supplementary to the act of April 9, 1898, and which stipulates, among other liabilities, the payment of half wages from the first day after the accident in all cases lasting more than ten days instead of from the fifth day after, as was originally provided.

The fact that this legislation was limited to certain trades gave rise to much controversy, and the courts of law differed widely in their interpretation of its extent. Generally speaking, and in addition to industries such as mines, quarries, building, and all work necessitating the use of machinery worked otherwise than by hand, all trades involving "manufacture" or transforming materials of any kind were judged as coming within the scope of the act; but even these definitions did not entirely dispose of all difficulties, and it is still an open question as to whether bakers, butchers, and various other trades can be considered as belonging to this latter category.

The evident unfairness to workmen belonging to industries not coming under the act and a desire to make the act more far-reaching soon caused a movement toward including in its scope all possible categories of workers, and it is this recent act of April 12, 1906, which definitely deals with the question and finally disposes of the doubts which still subsisted as to the relative position of various trades. All commercial enterprises, with the sole exception of agriculture, are now subjected to these employers' liability acts. Some little time, however, must elapse before the new act becomes operative, as certain administrative measures have to be carried out with regard to the imposition of a small tax on all commerce. The proceeds of this tax will be used by the State for the formation of a fund to guarantee workmen in a certain measure against bankruptcy of employers or of insurance companies in which employers have covered their liabilities.

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NEW LAW MUST GO INTO EFFECT THIS YEAR.

A clause of the act renders it impossible for this delay to extend beyond the end of the present year, and it is thought that, until the measure becomes operative, the courts and all those who may be concerned will take their inspiration from its provisions. Many employers have for a long time past taken the precaution of protecting themselves by means of insurance against all possible liability, both in respect of common law and this new act; and in this connection may be quoted the words used in the Senate on March 27 by a French official in charge of the extension of commercial enterprises, as follows: "The business man has, moreover, the power, which it is prudent for him to exercise, to insure himself, and the insurance premium can enter into his general expenses, be embodied in the product of his industry, and so be carried forward in the sum total of expenses."

STRIKES IN FRANCE.

PROPOSED LAW TO MAKE ARBITRATION COMPULSORY.

The recent strikes in France have led to a serious attempt to bring about legislation to settle disputes of that kind. M. Millerand, an ex-minister of commerce and industry, is pushing a bill in the Chamber of Deputies which has for its object the "organization of a régime that will prevent conflicts between masters and workmen, and, in case where such conflicts have not been avoided, will lead to a prompt solution."

The purpose of the bill is to induce compulsory arbitration of trade disputes. Under its operation, in all industrial and commercial establishments where at least 50 persons are employed, notices are to be posted that in case of a conflict between the employer and his workmen the matter in dispute will be submitted to arbitration as it will be organized by the new law. Entrance into the establishment will constitute the reciprocal engagement between the employer and the workmen to conform to the terms of this notice. An article of the bill provides for the regulation of difficulties. The workmen of each establishment will choose from among themselves permanent delegates who will act as intermediaries between the men and their employer or his representative. The employer will have nothing to do with the labor union. He will be approached only by the permanent delegates chosen by his own workmen. Days and hours will be fixed when the workmen's delegates may be received and have a personal interview with the chief of the establishment himself. The employer must give a reply within forty-eight hours to any demand made in the regular way, and should his reply be unfavorable he must name his arbitrators, and within another forty-eight hours the workmen must do the same and the question be submitted to arbitration.

WHEN A STRIKE MAY BE DECLARED.

Should the employer not give a reply to the demands of the men within the forty-eight hours fixed by law "the men may decide to strike." Where the arbitrators are unable to agree they choose an arbitrator whose decision must be made known within six days or the "men may decide on the cessation of work." A strike can not take

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place except when the workmen immediately concerned have regularly voted for it. A provision is to the effect that when collective cessation of work has been so determined by vote it is compulsory for those directly concerned "and that the vote must be renewed every seven days at the least." Workmen who have found other employment or who have left the neighborhood can not take part in this vote.

There are many other interesting points in this bill, one of which strikes a blow at intimidation. Any one who by violence, menaces, gifts, or promises, either to the workman or his family, tries to influence the vote of a workman may be punished with imprisonment and a heavy fine. There are the usual provisions protecting the delegates and the arbitrators. The bill provides that in case the arbitrators' decision is not carried out the offending party or parties will be deprived of their civil rights for three years; that is, they can not vote at any election or exercise other civil rights.

M. Millerand wants to put a clause into every contract so that in case of a dispute between a contractor and his workmen the matter shall be referred to arbitration as organized by the new law. The public opinion, it is said, is favorable to the bill. There have been so many strikes in France which have resulted in great losses to workmen that there is some hope of good from a measure of this kind.

STRIKES IN GERMANY.

Consul E. L. Harris, of Chemnitz, figures that during the first three months of 1906 there were 536 strikes in the German Empire.

About 400 factories shut down, quite a number being lockouts. The workmen affected numbered about 90,000. Something like 400 strikes and lockouts were amicably settled, while the others were waged until the workmen were compelled to return to work. The number of strikes during 1905 throughout Germany was 2,406. Nearly all were settled before the end of the year. Nearly 15,000 factories were affected, while more than 400,000 workmen were partially or completely thrown out of employment, including 67,000 minors of both sexes. Fifty per cent of the strikes were brought to a close by mutual agreement. Only 528 were a complete success on the part of the strikers, all others being only a partial success or complete failure.

MODERN WORKMEN'S HOUSES.

PRACTICAL EXPERIMENTS BY AN ITALIAN MUNICIPALITY.

Consul James E. Dunning, of Milan, sends a supplementary report on the plan of the Milan municipality to establish a new series of modern homes for workingmen.

In May of 1905, on approving the purchase of some extensive new areas of land in the village of Cagnola, about 2 miles northwest from Milan Cathedral, at the terminus of a trolley line, the communal council agreed to hold over for special discussion the complex questions related to the apportionment of the territory. In the meantime further purchases were made, and finally the whole matter was put into the hands of a special commission.

A part of the new area will be devoted to public utilities, the municipality fixing the prices at which spare lots will be sold to private

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buyers after the sections to be devoted to the workmen's houses are allotted. These sales will feed the municipal building fund created for this special work. The main portion of the fund will be supplied by the great Milan savings bank, which has for many years been a decided factor in practical charity among needy Italians. The bank has agreed to loan the municipality $400,000 at 3¾ per cent interest, and the money will be immediately applied to the development of the new plan.

TYPES OF HOUSES.

Of two distinct types of houses proposed the first will be of brick and stone, with four floors, including the ground floor, with specially arranged rooms to secure light, air, and complete sanitary systems. There will be four of these houses, containing a total of 780 rooms, the building cost being $220,000, or about $280 per room. Adding $18,000, the cost of the land, the total cost of each room is about $300. The low cost of Italian labor has an interesting relation, of course, to the expense of carrying out this enterprise as compared with what would be needed in the United States for a similar undertaking. The houses will be of brick and stone, which are cheaper than timber in Italy. Attached to each will be a commodious hall in which will be cared for during the daytime such small children as are not yet in school and whose mothers are employed elsewhere. Particular care will be taken in designing the spaces appropriated for water-closets and lavatories.

The second type of house proposed is the first attempt to give to southern Europe the individualized family life of Great Britain and the United States. The plan calls for 64 cottages with a total of 560 rooms and grouped in blocks. Neither the Italian disposition nor the finances of the present undertaking are equal to a consideration of actually separate houses, and I doubt very much that the class for which these accommodations are to be provided are ready for that sort of thing. Attached to each 3-room cottage will be a garden space about 20 feet square, while on the front each will have its separate doorway and entrance. The sum of $190,000 has been appropriated for these cottage tenements, and the total cost per room will be about $380. It is expected that most of the extra cost of this form of construction will be saved in charges for janitor and porter service common to the old type.

COST OF THE ENTERPRISE.

For the entire colony a central pavilion containing baths, lavatories, libraries, and reading rooms will be established, also public washhouses similar to those now used in the city proper, though built on a considerably improved plan. There is to be a central plant for heating the apartments and for the water used in the washhouses. Men and women will have separate bath houses, so that these accommodations will be open to both sexes every day in the week. The building cost of this central pavilion is estimated at $30,000, exclusive of land, but including the equipment of machinery and apparatus. This makes the total cost of the Cagnola plan about $450,000. The apartments in the tenement houses will rent for about $18 per room per year and the cottages at $23 per room per year. It is the expectation of the commission that the enterprise will make a net return on the capital invested of 4 per cent for the tenements and 3.90 per cent for the cottages.

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TRANSPORTATION.

EXTENSION OF RAILWAY LINES.

CHINA.

EXTENSIVE COMMERCIAL OPENING OF FLOWERY KINGDOM.

According to Consul Thornwell Haynes, of Nankin, if railways are the arteries through which flow a nation's commercial lifeblood, then China, "the sleeping giant," is awakening. His letter describing the railway movement in the Empire follows:

The mileage of roads now in operation, being built, and projected, including the railways built under the Manchurian concession, approximates 9,000 miles. This is more than Spain, only a thousand miles less than Italy, and nearly half as much as the United Kingdom possesses. Its insignificance, however, from the American standpoint, is seen when we notice that it is less than that of the single State of Illinois, or of Ohio, or Pennsylvania, or Texas. Railways in China have been classed as commercial, political, commercial-political, and strategical. They may also be grouped according to the nationality of their concessionaires. These would be Chinese, English, German, French, Belgian, and Portuguese.

CHINESE CONCESSIONS.

The following are lines which have been, or are being built, or projected by Chinese initiative and under entire Chinese control.

Peking-Si-ling.—This line, extending from the capital westward to Si-ling, or the West Mausolea, is nearly 40 miles long. It was constructed by native engineers some years ago and has since been in continual operation.

Shanghai-Woosung.—This line, about 12 miles long, was first constructed in 1876 under the auspices of an English firm. For a year it bore considerable traffic, but the Chinese Government, objecting to its being in the hands of foreigners, bought it in 1877, tore it up, and transferred the rails and rolling stock to Formosa. It was not until 1898 that the Chinese Government reconstructed the line, and at present is a most pronounced success financially. It is to be incorporated as part of the Shanghai-Soochow system.

Wuhu-Sengan.—Surveying has only recently begun on this line, beginning at Wuhu and extending 30 miles to the southeast. At present the work seems at a standstill for the want of money. The line will be built to Sengan, in northern Chekiang, 100 miles, to connect with the railway system of that province.

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Pingsiang-Chuchow.—This line, which at first connected the coal mines of Anyuen with Liling, a distance of 23 miles, was last year extended 29 miles farther to Chuchow.

Nanchang-Kiukiang.—A concession for this line, about 100 miles long, was granted to a Chinese syndicate some years ago, but the matter lay in abeyance until recently the gentry of Kiangsi decided to proceed with the construction of the line.

Chengtu-Hankow.—The building of this road was authorized some years ago. It is now stated in Chengtu that the gentry and officials of Szechuen have decided to start at once the construction of the 60 miles between Chengtu and Chiangkou and thus begin the building of the proposed road to Hankow, which will be the great trunk line crossing the Empire from west to east, as the Peking-Canton line is to be from north to south. When completed the road will be some 700 miles long.

Changsha-Chenchow.—During the early part of last year a Chinese syndicate was formed and obtained the imperial sanction to construct a railway between Changsha and Chenchow via Changseh, and steps are now being taken to effect the project. These cities are large and important commercially, lying wholly within the Hunan Province, which abounds in coal. The line would be 200 miles in length.

Canton-Whampao.—Last year imperial sanction was given to construct this line. It is only 10 miles in length, but its importance lies not only in the fact that it is an initiative for a line passing through Swatow to Amoy to connect with the system of Fukien Province, but that Whampao, with its deep and magnificent harbor, might seriously affect the commercial interests of Hongkong.

Amoy-Changchou.—This line, which will be about 30 miles long, is being built under the direction of the famous Lin family, formerly the millionaires of Formosa. When completed it is thought that it will be extended to Fuchau.

Swatow-Chaochou.—This line connects the port of Swatow with Chaochou, the capital of the prefecture by that name. It is being constructed by Japanese contractors, and all the railway materials except rails and locomotives are imported from Japan. In regard to this railway a correspondent of the North China Daily News, Shanghai, wrote from Swatow recently as follows:

> The sense of security is not enhanced by the experience of shareholders in the Swatow-Chaochou railway. That line was to be opened to Ampou at the beginning of the year, but it carries nothing heavier than open trucks yet, and these travel warily. The spring rains play havoc with the mud embankment, leaving sleepers airily suspended from the rails which they should carry. So the opening is postponed until the autumn, that is, until the rains are over for the year. To complete the line $800,000 are asked for.

Canton-Hankow.—This line was to complete the through trunk line from Peking to Hankow, now finished. For financing the Canton-Hankow line, the American China Development Company agreed in 1898 to provide a loan of $20,000,000. The concessions were sold back to the Chinese Government last October for $6,750,000. Work on the main line has been carried about 70 miles above Canton, where it remains awaiting the settlement of a seemingly interminable struggle for dictatorship between the viceroy at Canton, the gentry, and the merchants.

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Peking-Kalgan.—This line, connecting the capital with Chang-chia-kou or Kalgan, a distance of 120 miles, is being built with Chinese Government capital and by Chinese engineers at an estimated cost of $4,500,000. It has been decided by the Government, at the recommendation of Viceroy Yuan Shih-kai, to extend the line, when finished, from Kalgan to Urga, the capital of Mongolia, and thence to Kulun, on the Mongolian frontier, the funds for which extension have already been provided.

Chinanfu-Chenting.—The concession for building this line was originally granted to Germany, but, being redeemed, preparations for its construction and the supplying of rolling stock are progressing.

Hangchow-Soochow.—The gentry and people of Chekiang Province have formed a company for the construction of their own railways. They have appointed a Chinese railway engineer as the chief engineer and are busily engaged in collecting capital. The first line to be built will run from Kungshun Bridge, near the settlement of Hangchow, to Kiangkan, on the Chentang River, a distance of 15 miles, whence it will be pushed on to Kashing and Soochow. A wise arrangement has been made among the gentry of the five provinces, Kiangsu, Kiangsi, Anhui, Chekiang, and Fukien, by which the railways in their respective provinces when completed will have a uniform gauge of track and rolling stock, so as to form an intercommunicating system in east central China.

Kaifeng-Chengchou.—This is a branch line of the Ching-han Railway, and connects Kaifeng and Chengchou. It is 50 miles long, and is graded ready for the laying of the rails.

Taiynan-Pingyao.—This line is in Shansi Province, and the officials and gentry there have decided that the first railway built by them shall connect Taiynan and Pingyao, in the Fen Chou prefecture, a distance of about 100 miles. They have also decided to build the three following lines, and have obtained the consent of the Shangpu thereto: (1) From Tatungfu to Kalgan; (2) from Puchou to Tungkuan, in Shensi, crossing the Yellow River; and (3) from Pingyan to Tsechou, connecting with the Taokou and Tsechou Railway, which was built by the Peking Syndicate and afterward sold to the Chinese Government.

BRITISH CONCESSIONS.

By certain concessions in Shansi and Honan provinces the Peking Syndicate (Anglo-Italian) secured rights to construct a railway from Taiyuen, in Shansi, to Singan, the capital of Shensi, whence a line is planned parallel with the course of the Yellow River to connect with Kai-fang, the terminus of a branch line of the Peking-Hankow Railway. The same syndicate has also undertaken to construct a line from Tsechou, on the southern boundary of its mine fields, to Singan, 250 miles distant, on the Han River. To connect the coal fields of northern Honan, operations were begun upon a line from Chinghua to Taokou, whence the Grand Canal could be reached by the Wei River, thus having water connection with Tientsin. The line has already been completed and ballasted for 90 miles from Taokou.

Peking-Newchwang.—This line, 555 miles long, is in operation. It was built with British capital, but sold a year ago to the Chinese Government. It runs from Peking to Tientsin, to which point it

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has a double track, thence through Tongku, Shanhaikwan, and Kinchow to Newchwang.

Tientsin-Chinkiang.—This line is secured by the Anglo-German syndicate. The southern half has been apportioned to the British and Chinese Corporation and the northern half to a German company.

Soochow-Hangchow.—This line, 200 miles in length, and the *Kowloon-Canton* line, which is under construction and 100 miles long, are secured by the British and Chinese Corporation.

Shanghai-Nanking.—The concession to this line was secured by the British and Chinese Corporation. The Shanghai-Woosung line is also included in the security. The length of the road is 180 miles, passing through the cities of Soochow, Wusieh, and Chinkiang. The line has been completed to Nan Hsiang, about 10 miles from Shanghai. It is hoped soon to be opened to public traffic as far as Soochow.

GERMAN CONCESSIONS.

Kiaochou-Chinanfu.—In the year 1889 certain German syndicates and the German Government obtained from the Chinese Government various railway and mining concessions in the province of Shangtung. By the treaty of March 6, 1898, the construction and maintenance of these railways were to be carried on by a German-Chinese company, formed as a joint-stock company with the title of "Shangtung Eisenbahn Gesellschaft." This company was formed in Berlin in June, 1898, with a capital of $12,852,000, and shortly afterwards headquarters were transferred to Tsingtau. It was soon decided not to construct the line from Chinanfu to Ichoufu, or any other point on the southern boundary of Shangtung Province. The Tsingtau-Chinanfu line was constructed during the winter of 1903, and has been in continuous operation ever since. It had its own postal and telegraph services until recently, when, owing to the strong representations of the Chinese Government, the separate postal service was given over to the Imperial Chinese postal service.

Tientsin-Chinkiang.—In May, 1898, an agreement was made by which a concession was granted to the Deutsch-Asiatische Bank and the British and Chinese Corporation, represented by the Hongkong and Shanghai Banking Corporation. The northern half of the line is to be under the control of the German bank, and the southern half is to be under the control of the Hongkong and Shanghai Bank, and is to run from Tahsien to Chinkiang on the Yangtse. The total length of the line will be about 600 miles.

Chinan-Chingting.—A concession was granted the Germans to build this line to connect with the Pekin-Hankow Railway, but the concession was recently, contemporaneously with the withdrawal of the German railway garrisons, resold to China for the same as was given for it.

FRENCH CONCESSIONS.

Tonquin Yunnan.—This line in intended to connect Hanoi in Tonquin with Mengtze and Yunnanfu, through the Lan River Valley, a distance of about 200 miles. This line is completed and operated as far as Mengtze, and the earth embankment has been finished as far as Yunnan.

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Langson-Lunchow-Nanning.—The concession for this line, which has a length of about 100 miles, was secured in 1889. It is about 100 miles long, and so far no work has been done on it.

Pakhoi-Nanning.—Nothing has been done on this line. The distance between the two cities is about 120 miles.

BELGIAN CONCESSIONS.

Ching-han or Peking-Hankow.—This line, which is about 800 miles in length, was authorized in 1889. The part of the line between Lu-kao-chiao and Paotingfu, some 90 miles, was built with Chinese Government capital under the direction of British engineers. The concessionaires of the portion from Paotingfu to Hankow was the Franco-Belgian Syndicate. At present one train leaves Peking and one from Hankow daily and already attracts many passengers and much freight.

PORTUGUESE CONCESSIONS.

Macao-Samshiu.—This line from Macao is to run to Siang-shau, thence to Kong-Moon and to Samshiu, the terminus, where it connects with the Canton-Samshiu branch line of the Canton-Hankow Railway. Unlike nearly all the other railways in China, this one will will be an entirely commercial undertaking, free from all governmental interference or political control. As this line will pass over the Canton and West River delta, many bridges will be necessary, rendering the undertaking a very costly one. The distance is about 130 miles.

CHINESE IMPERIAL RAILWAYS.

Peking-Tientsin-Shanhaikwan-Newchwang.—For this railway a loan of £2,300,000, bearing 5 per cent interest, was made from the British and Chinese Corporation (Limited), whose agents are the Hongkong and Shanghai Banking Corporation (Limited), of London. The lines of railways mortgaged as security for this loan, and which are in operation, are the 84 miles Peking to Tientsin, double line; 27 miles Tientsin to Tongku, single line, and 147 miles Tongku to Shanhaikwan, single line. The lines also in operation, but upon the earnings only of which this loan has a first charge, are the 130 miles Shanhaikwan to Kinchow, single line, and 130 miles Kinchow to Newchwang, thus constituting a continuous and complete railway of 526 miles, exclusive of 30 miles for sidings, all of standard English gauge. It has been computed by the engineer in chief of the imperial railways in North China that the capital cost of the intramural line from Peking to Shanhaikwan, a distance of 258 miles, exclusive of sidings, was $9,529,000, or about $36,650 to a mile. The cost of the line from Shanhaikwan to Chunghousu (40 miles) was about $40,315 per mile; but if the sidings are taken into consideration the cost per mile is about the same as the intramural line. Taking these figures as a basis, we find that the cost of construction in North China amounts to about $36,650 per mile.

PROFITS OF OPERATION.

For the line from Peking to Chunghousu, a point 40 miles outside the Great Wall, according to the same authority mentioned above,

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the annual receipts before the year 1900 averaged $1,466,000, while the working expenses were $879,600. If the capital cost of the line was $11,728,000, there was a net profit of $586,400, or 5 per cent on the investment. But railway enterprise was then only in its infancy and the volume of both passenger and goods traffic must have greatly increased since then, so that under proper management there is no reason why a profit of 8 or even 10 per cent should not be returned. During 1905 it is computed that the net earnings were sufficient to pay a dividend of 20 per cent on the capital cost. The bridges of these lines consist of steel girders resting on masonry or concrete piers and abutments, sunk by compressed air to a proper foundation. The largest and longest bridge on the intramural line is that over the Lan Ho, spanning a distance of 2,200 feet.

At Tongshan are situated the principal workshops, where several thousand men are employed in car building and general repair work. Here and in vicinity are also the Chinese Engineering and Mining Company's mines, the products from which yield much traffic. The mines are now working as a joint stock company composed of foreign and Chinese stockholders and registered in London. They employ about 10,000 men, with an output of about 3,000 tons of coal per day. The shops for girder building are at Shanhaikwan, and are capable of turning out 6,000 tons of girder work per annum.

BRAZIL.

PROFITS OF PRESENT LINES, AND AMERICAN OPPORTUNITIES.

According to Consul-General G. E. Anderson, of Rio Janeiro, the year 1905 was a fairly successful one for the railways of Brazil.

The annual reports published recently indicate a healthy condition of affairs. The Great Western Railway of Brazil Company shows dividends of 6 per cent after making considerable additions to sinking funds. The Espirito Santo and Caravellas Railway pays 2½ per cent after expending considerable sums for betterments and extensions. The Leopoldino Railway pays 4 per cent dividend and allows large sums for sinking funds and the retirement of bonds. Other roads have similar reports, but it is difficult to get at the real situation in each company until the conditions are understood. It is probable that the earnings indicated by these dividends, with the allowances for other purposes, really represent a very high percentage on the investment. The Government guarantees the redemption or reversion of the several railroads to the Government after a lapse of years, and other conditions go to influence the figures presented to shareholders. Most railroads in Brazil are built and operated upon concessions, with the guaranty of a certain rate of interest, say, 6 per cent. Interest returns above a certain point may directly or indirectly go to the Government, for it is provided that at the end of the concession the Government shall own the railway and its equipment, and the Government may take the roads at any time by paying their value.

PRIVATE ENTERPRISE DISCOURAGED.

Guaranty of interest returns results in but little enterprise in the management of the railroads. On the other hand, when interest returns run high, the Government finds it profitable to take over the

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roads. In a number of cases the Government has taken lines upon which it was paying dividends in support of its guaranty, has leased them to individuals or corporations, and has derived from them a profit over and above the interest returns guaranteed the original investors. Out of the $1,914,000 net receipts of the Leopoldino Railway for 1905, $243,000 was added to the sinking fund. In the United States this sum would have gone to dividends. The earnings of the Brazilian railroads are very high, based upon high freight rates and passenger tariffs. Coffee carriage for comparatively short distances from plantations to the coast often amounts to more than 15 per cent of the freight value. The Brazilian Government, therefore, is buying the railroads of the country, but it is doing so at the expense of some of its producing industries. With some of the railroad companies the net earnings are kept low to avoid Government interference, by high salaries to company officials, and extraordinary betterments where such betterments will revert to the company. Some very fine depot property is to be found upon some very poor railroads in Brazil, and railroad financing wherein governmental and private interests differ may generally be offered in full explanation of the incongruities.

MANY NEW LINES.

Taken as a whole, however, the need of railroad improvement in Brazil is being met with fair success at the present time. The Government changed the São Paulo branch of the Central Railway from narrow to broad gauge and extended it to Formiga, on the Minas Western Railway. The line from Ceara to Baturité, in north Brazil, and the Ceara-Mirim road in Rio Grande do Norte will be completed during the current season and will form a much needed communication between the coast and the isolated regions of Ceara. Work on the reconstruction of the railway to Thereza Christina is again going on. The construction of roads under Government interest guaranties is progressing more rapidly. The Rio Grande and São Paulo Railway is building, and has for its ultimate purpose a line north to Iatraré, where it will form a junction with the Sorocaba Railway and ultimately connect with the Santa Maria extension into Uruguay, forming also a connection with the railway system of Argentina. The proposed railway from Tocautins to Araguaya has been surveyed, and it is expected by the Government officials that it will be constructed shortly. The line from Victoria to Diamantina, in Minas Geraes, is nearing completion. The line from Bahuru to Cuyaba has been surveyed and the line to Goyas, in the state of Goyaz, has had preliminary surveys made for it. Altogether it may be said that private capital is being given abundant inducement along certain well-fixed and defined policies.

PROSPECTS FOR AMERICAN ORDERS.

Generally speaking the railroad situation in Brazil represents improvement and progress. Foreign capital is invited and American interests might find many opportunities for investment in Brazilian companies. Naturally with American investment would come the purchase of supplies in the United States, but betterment in the American trade in railroad supplies in Brazil can hardly come until the railroads purchasing such supplies are controlled by Americans. American supplies and American machinery, American rolling stock

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and American methods of management may be very much better than those now obtaining, but so long as those responsible for them are more familiar with European goods and European methods just so long will the latter be preferred to the former. The present policy of the Brazilian Government toward railroad investments does not promise continuance of investment, but it does promise safe returns, and even though a railway constructed by American capital should become a government road it is probable that the American cast to it given in its original construction would lead to the use of American machinery and supplies. The permanent trade advantage of the United States would be far more advanced by the continued use of American railway supplies than by the actual ownership of the railways by American capital.

UNITED STATES LOCOMOTIVES.

The use of American machinery on Brazilian railways seems to be confined almost altogether to American locomotives, but in this particular branch the merit of the American machine is carrying everything before it. Upon the best lines the locomotives are almost altogether American, the exeptions generally being hill-climbing cog locomotives from Germany. There seems to be a disposition to purchase all locomotives in the United States. The Baldwin works is now sending 17 locomotives for the Central Railway of Brazil, the chief government road. Locomotives for other roads are also being sent down from time to time and there are locomotive constructors from American concerns now in Brazil under three-year contracts for the erection of American locomotives here. Aside from the motive power being sold the railways, there is considerable being done in the equipment of sugar and coffee plantations with small locomotives, and in some cases with complete railway systems. But there is very little American rolling stock on any of the railroads other than locomotives. It seems to be a branch of the business which has not been properly pushed from the United States; nor is there the use of American steel generally which there ought to be. In this and in other industrial matters it seems to me that the preeminent opportunity for American trade in Brazil and in South America is in the line of machinery.

CHARACTER OF ROLLING STOCK.

The rolling stock is built similar to the best American types. The freight cars have a 30-ton carrying capacity. The passenger cars are similar to those in America, having through passages and end platforms. At Kaochiao, which means "High bridge," and is distant 60 miles from Shanhaikwan, there is a branch line running northwesterly for 30 miles, and connecting with the Nanpiao coal mines. These mines are pronounced by experts to be the richest and most valuable coal mines in North China. There are two large bridges on the Shanhaikwan-Newchwang lines—one across the Talingho, east of Kinchow, and the other over the Siaolingho, immediately south of the same city. The latter bridge, which was of much more difficult construction than the other, was built by a Chinese civil engineer who graduated from the Sheffield School of Yale University. At Yingkow, the sea port of Newchwang, and where is situated the more important railway terminus of the extra mural line, a fine site of 1,000 acres has been secured to meet the extensive requirements of the traffic.

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COLOMBIA.

EXTENSIVE GRIDIRON SYSTEM WILL OPEN UP ENTIRE COUNTRY.

Mr. John Barrett, minister at Bogota, reports that Colombia is planning a system of railways which, if carried to completion, will have a great influence on its future prosperity. He gives the details of a railroad extension programme just announced by President Reyes, as follows:

First. The line from Buenaventura, on the Pacific coast, and which was orignally intended to cross the central range of the Andes at an enormous cost and requiring many years to construct, is to be diverted at Cali, in the rich Cauca Valley, and follow down the course of the Cauca River via Cartago and Caramanta to a convenient point, and then proceed from there to Medellin, the prosperous capital of the rich province of Antioquia.

Second. The railroad of Antioquia, joining with the Cauca Railroad at Medellin, will be built to Puerto Berrio, on the Magdalena River, and from there down the banks of the Magdalena to Barranca Bermeja, the highest point on the Magdalena River to which navigation is safe and good the year round.

Third. From Barranca Bermeja, on the Magdalena, will start an important railway to Bucaramanga, the growing capital of the department of Santander, and from there it will be later continued to Cucuta, the principal Colombian city on the borders of Venezuela. Through Cucuta goes most of the Colombian trade to Maracaibo Lake.

Fourth. The La Dorada Railroad, which is expected to reach Ambalema, on the Magdalena River, at the end of the following year, will proceed to Beltran, on the banks of the Magdalena, along those of the river Seco, and, passing by the summit of Limbo, will be connected at Tocaima with the railroad of Giradot, which, in the near future, will reach the savannah on which Bogota is located, and provide direct communication with the capital.

PRESIDENT REYES'S FORESIGHT.

In commenting on this complex system it is well to note that, until it was proposed by President Reyes, these different railroads were each pursuing their own course without reference to forming an actual network that would prove of benefit to all. They will not only place the mountain capital of Bogota in quick communication with distant and diverse parts of the Republic, but they will provide for each section an excellent means of reaching their best markets. The change in the route of the Cauca road, while it will make a little longer the time between Bogota and Buenaventura, on the Pacific, will develop instead one of the richest parts of the country and give the great interior department of Antioquia access to the Pacific as well as to the Atlantic, which it will have by the Antioquia Railroad and the Magdalena River. A newspaper of Bogota says of these plans:

The cost will not exceed $30,000,000 gold, and the interest which the Republic will have to pay on this capital until they are completed will be about $1,800,000 gold per annum, which, in view of the development of public resources and commerce aided by this same foreign capital and by these railroads, it will be able to

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pay without difficulty. This system will place in communication the most important centers of the country and will pass through the richest sections, and, above all, will facilitate the exploitation of these sections with adequate machinery, and aid in the development of the rich mines of gold and silver in the province of Maramato and in the center of Antioquia, which can undoubtedly be described as another Transvaal that only requires machinery and transportation to produce wealth like that section of Africa.

While American concessionaires are heavily interested in these systems, there will be far more European and English capital invested than American. This is only the beginning of a far more extensive gridironing of the country which must surely come when its vast wealth of resources are appreciated.

CUBA.

TWELVE NEW LINES AUTHORIZED BY ISLAND GOVERNMENT.

Mr. E. V. Morgan, minister at Habana, writes that President Palma in his semiannual message to the Cuban Congress, in connection with a plea for the encouragement of immigration, urged State aid in railway extension as a measure of both economic and political importance.

The President reminded Congress of the desirability of developing tracts of land which, though potentially rich, had contributed hitherto neither to the wealth of their owners nor to the State, because of insufficient transportation facilities. The railway-subsidy bill which has just passed (the text of which in translation can be consulted at the Bureau of Manufactures) in its original form provided for a Government guaranty of 5 per cent interest on stock. This was deemed extravagant and a direct maximum subsidy of $6,000 per kilometer (0.62137 mile) was substituted. Article 6, instead of stipulating that roads should be built in stated order, was amended to provide that after the expiration of one year, except for the first two named, President Palma was empowered to contract for the construction of any of them. This alteration was intended to facilitate those companies which desired to construct certain roads and which might otherwise have been impeded in their purpose had no application been made to build those which preceded them in the official list.

The Cuba Railroad will shortly undertake the construction of the lines specified in paragraphs 1, 3, and 4, namely, from Marti through Bayamo and San Luis with a branch to Manzanillo, from Manicaragua to Cienfuegos, and from Camaguey to Santa Cruz del Sur. It is not improbable, moreover, that the same company may build the line from Placetas to Fernandez to connect with the Government line which runs from that place to Casilda. The Cuba company's proposed extensions will aggregate 453 kilometers. The lengths of the various lines for which subsidies have been authorized are as follows:

	Kilometers.
1. From Marti to Bayamo and San Luis, with a branch from Bayamo to Manzanillo	265
2. From Fernandez to Placetas del Sur, connecting with the Cuba Railroad Company	60
3. From Manicaragua to Cienfuegos	52
4. From Camaguey to Santa Cruz del Sur	76

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	Kilometers.
5. From Sagua to San Jose de los Ramos	96
6. From Victoria de las Tunas to Puerto Padre	65
7. From Cardenas to Coliseo, with branch to Guamacaro	40
8. From Guayabal to Nuevitas	110
9. From Pinar del Rio to Esperanza	50
10. From Matanzas to Canasi	26
11. From Guantanamo to Baracoa	110
12. From Habana to San Jose, Jaruco, and Santa Cruz del Norte	70
Total (approximate)	1,020

The bill seems particularly calculated to facilitate the development of the eastern portion of the island. Camaguey and Santiago provinces are still in the initial stages of their growth. Although they represent 54 per cent of the area of the island, their production has not been correspondingly large, the former having a population of only 8 and the latter of 26 persons to the square mile, as compared to the 35 to 153 of the other provinces. Great tracts of land, though well suited for the cultivation of sugar, coffee, and fruit and for grazing purposes, are still in a wild state. With the exception of Jucaro, in the southwest of Camaguey Province, Santiago is the only port of the south coast in railway communication with the rest of the island. On the north coast San Fernando, Nuevitas, Gibara, and Antilla alone draw their freight by rail from the interior.

RUSSIA.

RATES ON FLOUR.

Consul R. S. Greene, at Vladivostok, sends the following translated article from the Dalni Vostok of that Siberian port:

We are told that a group of owners of flour mills in Harbin have presented a petition to the proper authorities asking for a reduction in the present tariff rates on flour charged by the Chinese-Eastern Railway Company. The comparatively high rates are interfering with the development to good proportions of an export trade in flour via Vladivostok to the nearest oriental markets. Experts in the flour business are of the positive opinion that the flour of local manufacture will undoubtedly compete with American flour. Their opinion they base on the alleged fact that the American wheat flour is essentially of considerably lower grade, as it contains a small admixture of corn flour, which makes it very heavy and inevitably damp. On comparison it is found that the first quality of American wheat flour is only equal to our wheat flour of the second quality. If a large new market is acquired the tolerably well-established flour-mill business in Siberia and Manchuria will necessarily be developed to a still greater extent, and an export trade from Vladivostok, which is now practically nonexistent, will be created.

MOVEMENTS OF TRAFFIC.

Last year the State-owned railways of Russia earned $185,000,000, about $29,000,000 less than in 1904. They carried almost exactly 10 per cent less freight, a proportion which held good also on the

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privately owned lines. In March of this year the tide turned, and there was an increase of $2,800,000 in the receipts over the same month last year, and for April the increase was equal to $4,000,000, and for May $1,600,000. This increase in receipts this year is said to be due to the overplus of the harvest of last year and the stock on hand which had not been moved. The foreign trade of Russia for the half year has been large; the imports have been a great deal more than last year, while the exports were something less; but there was an excess of exports over imports for the half year amounting to 131,287,000 rubles. (A ruble=51½ cents.) This economic strength is said to have done much to mitigate the evils of a threatened social cataclysm.

AFRICA.

EXTENSION IN NIGERIA.

The various agencies at work to secure an extension of the railways into Nigeria expect a favorable reply soon. The British cotton association makes the extension of the railways necessary for the introduction of cotton, for which they assert that part of Africa is well adapted. The proposal before the Government is for an extension of the existing 3 feet 6 inch gauge of railway running from Lagos Island for a distance of 124 miles to Ibadan, a further section of which is now under construction to Oshogbo, 187 miles from the coast. The proposed further extension will go from Oshogbo via Ilorin to the Niger at Jebba, another stretch of 120 miles, or a total length of 307 miles from the sea to the Niger. If begun at once this extension would probably not be completed in less than three years. Another line is proposed on the other bank of the Niger. As the roads would be built purely to advance cotton growing, the determination to expend British money in that way may not be realized.

HAITI.

PROGRESS ON NEW LINE.

Information relative to the progress made in building the Gonaives Railroad in Haiti is furnished by Consul John B. Terres, of Port au Prince.

About 15 miles of the track is laid and quite a distance graded, the work being pushed forward and a train now running over the portion of the road completed, transporting the materials as they arrive via the Hamburg-American Line. In a short time the first section will be finished and after examination and acceptance, done by Government engineers, payment will commence of the 6 per cent guaranty on every $15,000 expended in the construction. This line will extend through a fertile part of the country, densely timbered with logwood, mahogany, and many varieties of hard cabinet woods and through a large coffee and mineral section. The whole of the district is a rich productive soil, and the transportation that will be thus offered will no doubt lead to a rapid development of the country.

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PRESERVING TIES.

VALUABLE GERMAN PROCESS—USE AND CONSUMPTION OF TIES.

In Germany, according to the Railway World, experience has proved that the usefulness of a beech tie is prolonged 50 per cent, being extended from eighteen years to twenty-seven years by a preservative process. In this country the preserving process is costly, because of the high price of creosote oil.

The oil is a by-product of gas plants, and it was formerly thrown away as waste. But a company, having ascertained its value, made long-time contracts with the gas-making companies for their entire output. In this way most of the oil of creosote was thoroughly controlled, and its price is easily regulated. The steam railroads consume over 84,000,000 ties annually, equal to 3,000,000,000 feet of lumber, board measure. To that may be added the requirements of the trolley railroads.

In addition to ties used by street railways the surface passenger railways in the cities are now using large quantities of lumber in construction work. Directly over the ties are laid boards which cover all of the space between the rails. The purpose of this is to support the pavement so that the street surface will be even and not depressed between the ties as has heretofore been the case. In the city of Philadelphia alone are 500 miles of street railway surface tracks. This one system presents a surface of 10,000,000 square feet to be covered with boards.

The consumption of wood per capita is greater now than ever, according to Mr. Hale, of the Forest Service of the Government.

STEAM AND ELECTRICITY.

RELATIVE COST OF OPERATING INVESTIGATION.

The committee of five practical steam-railway officials detailed by the American Railway Master Mechanics' Association to report on electric versus steam railways, after a thorough investigation in Great Britain and elsewhere, concludes that where there is sufficient diversity of traffic it will pay steam railways to work their suburban and interurban traffic electrically, but in such cases the traffic should have its separate tracks. The statement is somewhat modified by the qualification that "few situations will figure out profitably with the combination service"—that is, the employment of both steam and electricity. As to the relative cost of operation with electricity or steam the committee reports that there is very little accurate information of value. The London Times says that it may be reassuring to English railway managers to know that such a representative committee of American railway experts, after carefully investigating the subject, practically says that American experience can give no better solution of the problem, and that the question of steam versus electricity for interurban and suburban traffic is no nearer a solution in America than it is in England.

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STEAMSHIPS.

NEW YORK-ARGENTINE LINE.

NAVIGATION TO BE EXTENDED FAR UP THE RIVER PLATA.

Consul John N. Ruffin reports from Asuncion that the Lloyd Brazilian Steamboat Company has resolved to put in operation at least a couple of steamers between New York and Buenos Ayres.

This company will also have weekly sailings up the River Plata, with appropriate steamboats as far as Matto-Grosso, Brazil, covering a distance of about 3,000 miles from Buenos Ayres. They will convey passengers and cargo and stop at Asuncion, and through bills of lading will be given to all points in Europe and America. Even on board the vessels one can obtain such bills of lading, which will be a great convenience to trade. It is understood that they have arrangements with all the railroad companies and interior transport concerns, also with other steamship lines, to accomplish their programme.

The Lloyd Brazilian headquarters are at Rio de Janeiro. This company already has a monthly service on the River Plata as far as Matto-Grosso, but carries very little cargo, if any, for Asuncion, as they transport goods principally for Brazil and are under agreement to reach Matto-Grosso at a given time.

SOUTH AFRICA.

EUROPEAN SUBSIDIES AND FREIGHT RATES.

Consul-General H. L. Washington transmits a press clipping from a Cape Town paper giving an interview with a partner in a British shipping company upon the result produced on South African trade through the subsidies of German and Austrian lines, which are making great progress. Particular attention is directed by Mr. Washington to the following statement from the interview with reference to the American trade:

> Now that the American freight war is a thing of the past, British manufacturers are in the happier position of seeing that in reference to competitive goods the American producer has no practical advantage. It must depend largely upon the South African importers as to whether this equal condition should continue or whether a further disturbance in freight rates should arise.

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MISCELLANEOUS.

MARKETS FOR SILVERWARE.

CANADA.

PEOPLE BECOMING PROSPEROUS AND BUYING LUXURIES.

The following report from Consul Michael J. Hendrick, at Belleville, Ontario, may be taken as descriptive of a considerable part of Canada as to the trade prospects in plated silverware. The consul gives a list of retail dealers of these goods, which can be obtained from the Bureau of Manufactures.

This district is agricultural, some manufacturing and mining being done, but the preponderating interest is in farming, dairying holding the most important place. The people are prosperous and are now purchasing more luxuries than heretofore, thus making it a good market for electroplated hollow ware. Most of the foreign silver-plated ware is sold to retailers direct by the manufacturers through traveling salesmen, who call frequently on the retailers. The goods most in demand consist of biscuit jars, casters, cake baskets, candelabra, coffee sets, bake dishes, berry dishes, crumb sets, fern dishes, fruit bowls, jewel boxes, napkin rings, sauce boats, shaving sets, butter dishes, sirup pitchers, tea sets, toilet sets, trays, and waiters. Those which do not sell so readily are cups and saucers, loving cups, pickle dishes, puff boxes, punch sets, smoking sets, trinket boxes, water and lavatory sets, and urns. The principal brands sold are of Canadian make, American and English made goods covering nearly the balance of sales.

The only disadvantage American goods are under is due to the preference of 33⅓ per cent in tariff charges in favor of British-made goods. German goods are charged a surtax of 33⅓ per cent. There are no departmental stores in this district. One firm has several stores in different cities in Ontario and buys American silver-plated goods exclusively at jobbers prices in New York.

Canadian manufacturers of electroplated hollow ware have been making great strides in the improvement of their goods within the past few years and are now selling much more than half retailed in this district. The English also have been giving more attention to the trade here; where they had one agent calling on the trade five years ago they now have five. They are making the greatest strides in the sale of the better goods—electroplated nickel silver—which are harder and ring on being tapped, and they lay down their goods at lower prices than the Americans. They sell all goods duty paid and are also improving in styles and studying Canadian markets more.

The Americans are also aggressive and have agents traveling through this district frequently, and while on the whole they sell more goods than formerly they are not increasing sales in proportion to the

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total increase in the trade. The American-made goods are mostly on britannia metal, and while the American makers offer the nickel, or hard goods, they seem to sell a smaller proportion of them, their sales mostly consisting of the britannia goods. I find that all agree that the American-made goods excel all others in finish. Electroplated britannia ware continues to be the most in demand except among city people and people of fashion, those being the ones who prefer the nickel or hard finish wares; one dealer showed me English-made goods, finished on nickel or hard metal, such as egg stands, etc., which he claimed were better goods than American, at 20 per cent less than he could sell American. During the holiday season more goods are sold than at any other time. I would advise that good aggressive traveling salesmen, calling frequently on the retail dealers, could increase the sale of American electroplated hollow ware. By taking such initial orders as they can get, and relying on the excellence of their goods and the promptness of delivery, watching closely the changing styles and offering such, and, above all, having their goods equal to sample, will increase the trade.

MEXICO.

BEST GOODS DESIRED—ARTICLES OF LUXURY IN DEMAND.

Consul Louis Kaiser writes from Mazatlan that opportunities for the sale of silverware on the west coast of Mexico are very good. He says:

The hollow ware mostly used in this market consists of castors, pitchers, cake baskets, coffee sets, fruit sets, jewel boxes, loving cups, napkin rings, toilet sets, waiters, and novelties. The principal brands on sale are German, and while the Rogers and Meriden ware have a good reputation but very little of these goods are on sale. The American ware is at no special disadvantage, except that there is no stock kept here, and that the merchants who are German, French, and Spaniards prefer buying goods in their own countries; in fact, most of them are branch houses of European concerns. [The names of importers and wholesalers who handle plated ware and the retail jewelry houses of Mazatlan are given by the consul, and are obtainable from the Bureau of Manufactures.]

The importers conduct business through the commission houses, who also settle the accounts of their correspondents, which are nearly all cash transactions, taking advantage of all of the cash discounts.

Illustrated catalogues are of little practical use, except when firms have running accounts. It frequently happens that catalogues several years old are sent, and when orders are given the articles wanted are out of stock, and others are substituted, which is seldom satisfactory. The practical way of introducing goods and opening an account with a local firm, is to send one or more best selling designs, and make a special discount on these samples as an inducement. Only guaranteed plated ware should be sent, as hollow ware of solid silver is mostly used in this part of Mexico. The majority of the Mexican people are not familiar with plated hollow ware, which has never been properly introduced to them. A merchant keeping a well-assorted stock could do a very profitable business, as Mexico is very prosperous and articles of luxury are in good demand.

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GERMANY LEADS AT DURANGO.

Consul J. A. Le Roy, of Durango, in answer to inquiries, writes that the sale of electric plated hollow ware is not large in his district. He reports that most of such ware, including plated knives and forks, comes from Germany for the reason that throughout Mexico the general hardware supply houses are under the management of Germans. There is no discrimination on American plate, and it should have a large sale in Mexico, owing to lower freight charges. The consul reports that merchants at Durango generally purchase through commission agents, but would buy considerable from United States manufacturers if they would send agents to solicit trade, which he believes to be the only efficient way to secure it.

MEAT INDUSTRY.

DECLARATION FOR AMERICAN MEAT IN ENGLAND.

The chief sanitary inspector of Barking, England, at a convention of inspectors, is quoted as making the following statement:

"If an Englishman knew what goes on in slaughterhouses in England and how their meat is treated they would welcome the Chicago product with open arms. It is cleaner and better than the general run of potted and tinned meats made in Germany or Great Britain. I have made careful inspection of the slaughterhouses in England, and have seen things that compare unfavorably even with the conditions alleged to exist in the great packing plants in the American city."

The declaration of the inspector was greeted with angry cries, and it is said that he was finally howled down. London health officers have formulated proposals dealing with canned goods for the consideration of the various borough authorities. The most important clause provides that the name and address of the manufacturer and the date of canning be impressed on all tins, and that 1 per cent of each consignment of imported food shall be inspected and examined before the goods may be opened, and that food intended for canning shall be inspected by an independent official prior to being canned. The use of preservatives is strictly prohibited.

That American meats will continue to be in great and probably even increasing demand may be inferred from a recent article in the London Lancet. This paper says that much of the meat which reaches the great central meat market at Smithfield from colonial and foreign sources leaves little to be desired. A large part of the imported meat of London, including much of the chilled and frozen meat from the United States and Argentina, is, in regard to disease and cleanliness, more satisfactory than much of the meat at home.

OFFICIAL INQUIRY STARTED IN SWITZERLAND.

Consul-General Richard Guenther, of Frankfort, reports that the Minister of the Interior in Switzerland has sent circular letters of instructions to the Governments of the different Cantons (States) of

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the Swiss Confederacy concerning the consumption of American meat therein.

The circular letter states that the Federal authorities, in view of the meat packing scandals, were about to seek information through their diplomatic representatives in the United States. It also gives the value of meat imported by Switzerland from the United States during the year 1905 at 2,330,000 francs (franc=19.3 cents). Before proposing protective measures to the Swiss Federal legislature the minister of the interior seeks information from the governments of the Cantons on the following points:

(1) What is the importance of the consumption of salted and smoked meat as food for the people of your Canton? (2) State if such meat therein consumed comes mainly from the United States; what quantities of canned meats are of domestic (Swiss) production; have any ill effects to health from the consumption of these meats become known to you? If so, state the cause, where the meat came from, and the extent of the damage done.

BARK CLOTH.

COMMERCIAL POSSIBILITIES OF AN AFRICAN PRODUCT.

Consul G. E. Eager is informed that the recent visit at Barmen of a resident of New York City, who has discovered the wide possibilities of a native product bark cloth, has exerted a lively interest among importers, manufacturers, and the German Government. The consul writes:

This product is a bark peeled from an east African tree, and pounded by the natives into a cloth in pieces of from 2 to 2½ yards in width and 4 to 6 yards in length. The tree is of the genus "fiscus," and grows, it is said, in inexhaustible quantities all over central and east Africa. The most interesting feature of the bark seems to be the good spinning possibilities of its fiber. Although the staple is rather short, there is no reason why it should not spin and make an admirable mixture with wool for felting or other purposes. The crude bark can be treated so as to yield the fiber readily without injury.

As the tree in question can be easily propagated and is not killed by stripping off the bark, but permits this process for fifty or more successive years, it is readily seen that this bark product will become a commodity of considerable possibilities. I inclose a sample of the cloth as produced by the crude native process from the bark of reddish-brown color, also a sample of the same bleached a pure white. [These will be loaned to interested parties by the Bureau of Manufactures.] This bark cloth has been on the American market for some time, as I have seen articles manufactured from it, such as ladies' shopping bags, card cases, book covers, caps and hats, table covers embroidered, mats, etc. It will be used extensively here in Germany by many different manufacturers on account of its novelty and of the cheapness for making innumerable articles for the masses.

Head coverings for men and women of all shapes and kinds made from this cloth are much lighter than straw or other material and of much greater porosity. The cloth can be trimmed like silk, muslin, or velvet; can be dyed in any color, and would answer for uniform

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caps or helmets for summer wear, as it can easily be waterproofed. It is blocked into any form and stays in shape, and when cemented two thicknesses crosswise it makes a cloth of great strength. In this form it is very suitable for mattings for summer cottages, and could be printed or stamped in all styles. It would also be an excellent and cheap substitute for burlap for walls.

I find that similar trees yielding a bark used by the natives for cloth grows almost everywhere south of the equator, in South America, East India, South Sea Islands, and also in our own possessions, the Philippines. I think it of importance to call the attention of our manufacturers to the wonderful possibilities of this bark and bark cloth.

In the book, Useful Fiber Plants of the World, issued by the Agricultural Department in Washington, I find a short statement about the African bark cloth, and although the statement refers to the bark as being derived from a tree, genus "brachystegia," there can be no doubt that the same article is meant which, as before stated, is derived from tree genus "fiscus."

The kapa cloth of the Hawaiian Islands is made in the same manner from the bark of the paper mulberry tree. Bark cloth is also made to some extent in the Philippines.

BAD PACKING.

INJURIOUS EFFECT ON THE EXPORT TRADE.

Complaints of bad packing by American exporters and of its injurious effect on the export business are common on the part of American consuls, but little seems to have been accomplished as yet in the way of reform. Paul C. Carter, purchasing agent in New York of the Philippine Government, has furnished an illustration of this evil, as related in the New York Commercial:

Mr. Carter recently had occasion to place an order for 2,000 vaccine tips. The order was divided between an American firm and a German house. The most minute directions were given for packing, marking, and invoicing, identically the same directions being submitted to the two manufacturing concerns. When the goods arrived and were opened at Manila, it was found that just one of the German articles had been damaged in transit, whereas 15 per cent of the American tips had been destroyed and were worthless. So far as known, the tips supplied by the two manufacturers were identical in every respect, and the only explanation that can be offered for the condition of the goods upon arrival was that the American packing had been bad, while that of the Germans had been practically perfect.

Speaking on the subject Mr. Carter said: "That was not an isolated case by any means. There is hardly a week in which I am not compelled to enter strenuous protests against bad packing on the part of firms to whom I send orders. You would be surprised to see what scant attention the average manufacturer gives to the preparation of his invoices, the marking of his cases, etc. One would think that his own self-interest would encourage him to do just a little bit better than eems to be his present inclination."

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CORRECTION BY BRITISH EXPORTERS.

Persistent protests against bad packing by consignees, appeals for betterment by agents of transportation lines, admonitions from consular officers and special agents have been effective to a large degree, although much remains to be done to secure complete correction of the deficiency.

Bad packing is not limited to manufacturers and exporters of the United States, whose inexperience in foreign fields relatively with Great Britain, Germany, and other European rivals may be offered in explanation of greater deficiency on part of Americans. That the British are applying the corrective is apparent from reports contained in British trade journals. With regard to goods shipped to South Africa the superintendent of stores, Natal Government Railways, has ately written:

"Last year, when making a review of the operations of this department for the twelve months passed, I took the opportunity of calling attention to the unsatisfactory manner in which several consignments of goods had been shipped to us. During the last year instances of bad packing, which have come under my notice, have been few and unimportant, and I am trusting that the state of things in this direction will continue."

The collector of customs at Natal, with full opportunity of being well informed on this matter, has reported: "I have made careful inquiries, and have elicited the fact that the British manufacturer is now more fully alive to the paramount necessity of adapting his goods to the special needs of the South African market. He is also paying greater attention to the packing of his goods, about which numerous complaints were made in former years."

POWER FROM WASTE GASES.

WHAT IS BEING DONE IN GERMANY AND ENGLAND.

H. E. Wimperis, a member of the Institution of Civil Engineers in England, has written an article stating that the attention of the English manufacturers is being drawn more and more to the great vogue on the Continent of the waste-power gas engine.

Dr. H. Hoffman recently read a paper before the Society of German Engineers on the subject, in which he estimated that in Germany no less than 600,000 horsepower might be obtained from the surplus gases of coke ovens, and an additional 1,000,000 horsepower from the waste gases of blast furnaces. The first gas-engine plant dealing with coke-oven gases was put into operation in 1894 in Germany, and there are now constructed or under construction gas engines capable of delivering no less than 400,000 horsepower when operated with "poor gases." Mr. Wimperis says:

"During last year alone one German firm is reported to have constructed 140 such engines of a combined capacity of 120,000 horsepower. This shows a movement of the keenest vitality. Less progress has been made in the United States, but American engineers are

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watching affairs very closely and are not likely to allow themselves to be left far behind in any improvement which makes for economy in manufacturing costs. Mr. Rossi, an American, has estimated that the power which could be saved in the metallurgical industries of the States must amount to some millions of horsepower, and he has expressed the opinion that an output of fully 1,000,000 horsepower could be maintained continuously."

EXPERIMENTS IN GERMANY.

Consul J. I. Brittain, writing from Kehl, states that further successful experiments have been made in Germany by way of utilizing waste gases.

In a large cement works in south Germany twelve rotary kilns are used. The waste gases from these kilns have a temperature of about 1,000 degrees Fahrenheit, and further experiments have been made as to the possibility of using these gases instead of allowing them to go up the chimney. One great difficulty met with was the large amount of flue ash and fine raw materials which these kilns drive off and which threaten to clog any form of boiler. Special means were adopted for continually removing the flue ash. The plant now has eight of these boilers built behind rotaries, seven of which are in constant use. They produce steam at about 110 pounds pressure, entirely from the waste gases, and feed a 450-horsepower engine, which drives the whole rotary plant, as well as the coal-grinding plant. Whereas 450-horsepower formerly went up the chimney and an equal amount had to be produced elsewhere to drive the plant, this power is now entirely gained from the waste gases and will materially reduce the cost of fuel for manufacturing.

MANUFACTURE OF GALALITH.

NEW FACTORY AT PARIS—SHAPE OF PRODUCT.

The manufacture of galalith, a new composition made from casein that is likely to supplant celluloid and other like substances, was recently reported on by Consul Brunot, at St. Etienne. Further particulars furnished by Vice-Consul-General A. E. Ingram, of Paris, in connection with a factory established at Levallois-Perret (Seine), just outside of Paris, will also prove of interest, owing to the many inquiries on the subject:

This company has also a factory at Harburg-sur-Elbe, Germany, and the factory at Surgères (Charente Inferieure), mentioned in the former report on the subject, is devoted simply to the separation of casein from milk for this purpose. Galalith is a plastic substance made by a patented process from the casein in skim milk, 60 liters (126.78 American pints) of skim milk furnishing 1 kilogram (2.20 pounds) of galalith. This substance is made in all colors, and excellent imitations of tortoise shell, amber, coral, ebony, horn, etc., are produced. It possesses the advantage over celluloid in being odorless and absolutely uninflammable, since it contains no camphor or similar

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ingredients. In hardness it resembles horn, and it can be worked in a similar manner; it takes a high polish, and is not affected by oils, ethers, benzine, etc.

This material is now being sold, in the rough, unpolished state, in plates about 15.74 by 15.74 inches or 19.68 by 31.49 inches, or in rods 29.52 inches to 39.37 inches in length, at net prices varying from $0.96 to $1.54 per kilogram, depending upon the color. The plates are approximately 1.16 inches in thickness, and the rods 3.16 inches in diameter.

IMPORTANT INVENTION.

NEW PROCESS OF TURNING ORE INTO IRON AND STEEL.

D. H. Ross, Canadian commercial agent at Melbourne, reports that two Australian inventors have discovered a new process for the continuous treatment of iron ore, and he says that the results they have achieved are so successful that the process is to be exploited throughout the world.

It is called the Heskett-Moore process for directly converting iron ore into malleable iron or steel by a continuous system, and it is claimed effects a saving of 25 per cent in the manufacture. The ore is simply concentrated by ordinary methods, or if it is magnetic it is separated electrically until the pure oxide of iron is obtained. The oxide of iron is passed through a revolving cylinder heated by waste gases from subsequent operations and brought in that cylinder to a dull red heat. It drops from the cylinder to a second similar cylinder, and in the latter it is brought into contact with the deoxidizing gas, which is forced through and brought into contact with the heated ore. The heated ore is thus converted into a pure iron. Accompanied by and protected by the deoxidizing gas, it is passed into a third chamber or melting hearth, where it falls into a bath of molten iron and is converted directly into steel or balled up as malleable iron.

The savings claimed for the process are those of time, labor—the whole process being automatic—fuel, and avoidance of flux. The inventors claim that they have discovered a direct method of producing steel from one operation instead of using the blast furnace and converter.

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